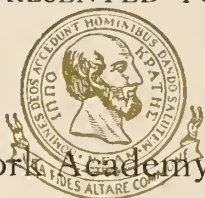


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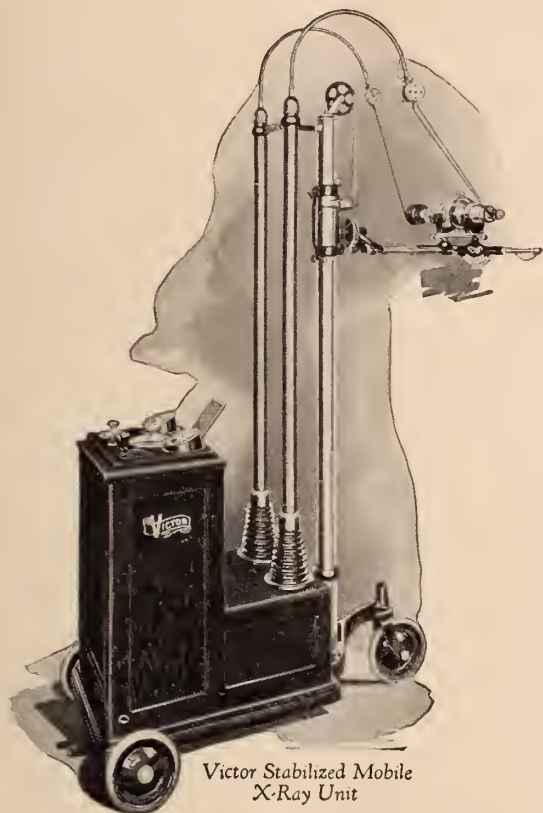




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The Journal

OF THE

South Carolina Medical Association

VOL. XXI.

GREENVILLE, S. C., JANUARY, 1925

NO. 1

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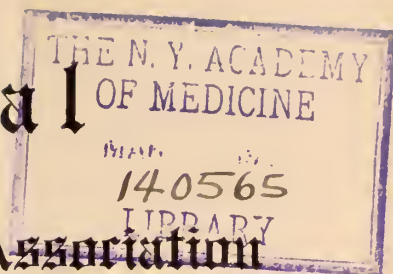
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EDITORIAL

THE SECOND DISTRICT PUTS ON FINE PROGRAM

The Secretary-Editor visited the Second District Medical Society at the Batesburg-Leesville High School, January 14th and learned much about the conduct of a very successful District Society. First of all, it was about the best balanced program we have had the pleasure of observing for some time. The general practitioner vied with the specialist in presenting practical problems for discussion. Then there were only two invited guests, not too many to monopolize the meeting. The dinner provided by the local medical society and the entertainment at the hands of the school authorities as well as the citizens generally evidenced a whole hearted hospitality not

surpassed anywhere. President D. M. Crosson of the State Medical Association is a member of the local society as is Dr. W. P. Timmerman, ex-president of the State Association and both of these gentlemen took an active part in making the guests feel at home. We take our hat off though to Dr. Marion H. Wyman of Columbia, President of the District Society and Dr. F. M. Routh, the Secretary, for providing a program that may well serve as a model to another District Associations.

GREENVILLE SOCIETY MEETS

One of the important events in medical circles of the up-country is the banquet of the Greenville County Medical Society held the first Monday evening in January each

Publisher

year. It appears that this progressive society always has something of keen interest to present to the members and visitors. Two important papers were read at the meeting this year, one by Professor Frank P. Gaines of Furman University on "The Doctor in Literature." Dr. Gaines is a master of the classics and delighted his hearers as a result of his wide knowledge of the doings of the medical man from remote antiquity to the present.

Dr. Frank Lander of Williamston, one of the able orators, of the State Medical Association read a very timely paper on "The Relation of The General Practitioner and the Specialist." The new President Dr. A. E. Brown starts the year with an enthusiasm that must necessarily inspire the Greenville County Medical Society to still greater accomplishments.

THE SPARTANBURG MEETING

The Secretary of the State Medical Association recently mailed a letter to the members of the Association calling attention to the rapid progress being made toward completing the program of the State Medical Association Meeting at Spartanburg, April 21st, 22nd, 23rd, 1925. Since the letter was mailed the scientific committee has given out the subjects of the two symposia ordered by the House of Delegates one for each day of the scientific sessions. For the first day the subject will be Cancer and for the second day Hookworm Disease. Recent statistics show that cancer is on the increase not only in South Carolina but in many parts of the world.

Since the intensive campaign to eradicate hook-worm disease from the South by the Rockefeller commission some years ago, very few papers have appeared on the programs of either the State Society or its constituent societies. It would appear therefore that it is time to check up the results of the efforts put forth along this line and to mark the real progress that has or has not been made. The contributors to both

of these symposia will be invited by the scientific committee because of their large experience and recognized ability to present in a specially creditable manner the subjects assigned to them. In addition to the symposia it is the intention of the House of Delegates that volunteer papers be accepted in sufficient numbers to complete a well rounded program for the two days of the convention.

ANDERSON AND MARLBORO SOCIETIES HOLD IMPORTANT MEETINGS

The officers of the State Association received most cordial invitations to the splendid banquets of the Marlboro and Anderson Societies. From the press reports both of these functions were ex-traordinarily successful. Papers were read by some of the ablest men in the Southern States and the work of the new year inaugurated along larger and more enthusiastic lines. In passing it may be noted that many other societies throughout the state have opened up the New Year with the determination to go forward along scientific lines, to increase the membership and to provide programs of such intense practical interest as to attract a good attendance at all of the meetings for 1925.

DEATH OF DR. C. C. GAMBRELL

In the passing of Dr. C. C. Gambrell of Abbeville organized medicine loses one of its staunch supporters. He was a very efficient officer for many years of his county and district association. Indeed he was President of the Third District Association at the time of his death. As a member of the State Board of Health of South Carolina Dr. Gambrell was able, conscientious, enthusiastic and sound in his judgment. He was Vice-President of that body. As a general practitioner and surgeon Dr. Gambrell was highly energetic and successful.

He was intensely interested in the civic welfare of the community in which he lived. He occupied numerous positions of honor and trust. Many have been the expressions

of sadness from members of the medical profession throughout the state at the loss of a physician endowed with the spirit of progress possessed by Dr. Gambrell.

ORIGINAL ARTICLES

THE TREATMENT OF CICATRICIAL STRICTURE OF THE ESOPHAGUS BY THE RETROGRADE METHOD

By H. W. Rice, M. D., Columbia, S. C.

In no other organ of the body is intelligent treatment more dependent on a correct understanding of the pathology than in cicatricial stricture of the esophagus. A lack of this information and its appreciation have been responsible no doubt for many of the failures that have heretofore attended the management of these cases. Fortunately the Bronchoscope and X-Ray make it possible to obtain this knowledge. The burns produced as a result of swallowing a caustic such as concentrated lye are attended with the usual pathological changes in burns of other localities. In the severer grades of burns we know that inflammation, ulceration and healing with the contraction of the scar tissue follow sequentially. When in a mucous membrane lined tube as the esophagus the end results are stenosis, distortion and dilatation of the lumen at various levels. Clinically these changes are manifested by dysphagia and aphagia terminating in inanition and often death. On restoration of the functions of the organ often depends the life of the patient.

There may be one or many ulcers resulting in as many cicatrices that sooner or later contract and distort the canal. Healing of the ulcers will be delayed because of

the irritation from food passing over the surfaces. Consequently in any case we are liable to meet with active ulceration in one segment and a healed stenosed lumen at other levels. The ulcerations may involve only one side of the tube or the entire circumference. Accordingly the strictures will be concentrically or eccentrically situated, thus changing the normal contour and course of the canal into "irregular heaps of scar tissue" tunnelled by a tortuous filliform opening.

On one side there may be an unhealed sloughing ulcer and on the opposite side either a normal wall or unyielding scar tissue. This explains the ease with which rigid instruments are carried out of their course and perforate the mediastinum. Again, owing to the difficulty of forcing food through the narrowed passage, the walls of the esophagus above the stricture dilate forming a blind pocket, which acts as a reservoir for decomposing food and into which an unguided instrument is readily diverted and if slight force is used may perforate the mediastinum. So frequently have these accidents occurred that Trusseau said: "Sooner or later all patients with stricture of the esophagus die of the bougie."

An examination by the bronchoscope when feasible and by the fluoroscope, and skiagraph if possible, should always be made to determine the exact situation of the strictures, their length, diameter, and whether or not multiple and eccentrically or concentrically located, as well as the presence or absence of intervening dilatations.

Upon these findings should largely depend the method of dilatation to be used.

The literature on esophageal stricture reveals the gropings of many workers for effective and safe methods of treating the condition and, except possibly with the highly trained specialist, the results have been disappointing and often disastrous. Until the use of the swallowed thread and the bronchoscope no method obtained a standing worth while.

The following procedures are now employed with more or less satisfaction in the cases to which they may be adapted:

I. Divulsion under bronchoscopic view,

In expert hands short single strictures or weblike obstructions may be cured by a few dilatations. Where there are multiple strictures, the successive dilatations of each separately gives too slow results.

II. The Mixer method.—Many years ago Mixer discovered that a thread could be swallowed and allowed to pass into several coils of intestines and when pulled taut, could be used as a guide for dilators after the manner of a filliform bougie in urethral stricture. A whalebone staff with a spiral spring connection carrying a series of metal olives with a perforation in the distal one to pass over the thread as a guide is employed. In expert hands, when the cooperation of the patient is assured, it would seem the method of choice in strictures of large caliber and in the probable absence of active ulceration. It is hardly necessary to argue that it is not adapted to atresia of the esophagus, and like all hard instruments is not devoid of danger.

III. The Dunham-Tucker or Retrograde method.—More than thirty years ago Dunham conceived the idea of using a swallowed thread, recovered through a gastrostomy opening, as a tractor for dilators to be drawn up through the stomach and esophagus. Here again it was found that steel instruments were dangerous. To Gabriel Tucker of Philadelphia we are indebted for the perfection of a bougie, made of soft rubber and spindle shaped, that is at-

tached to the swallowed thread and pulled up through the gastric fistula and the esophagus.

The advantages of the retrograde method are: (1) The patient can be fed through the gastrostomy opening and the esophagus put at rest, thus applying the principle used by gastro-enterostomy in ulcers of the pylorus and duodenum. Any existing ulcers are given a surcease from the constant irritation of food passing through the esophagus or from the repeated efforts to swallow. Then, the congestion is abated and often what was an impassible stricture becomes permeable to fluids and the swallowed thread. This was what actually happened in the case to be presented. Neither water nor food had been swallowed for more than three days and the gastrostomy was done as a life saving measure. (2) The soft rubber instrument produces the least possible trauma, adapting itself to the angulations of the distorted and stenosed axis of the esophagus. (3) The bougie may be allowed to remain for 24 hours in the esophagus, ironing out the curves and stretching the opening. (4) The patient need not remain in the hospital after the gastrostomy opening has been established and the dilatation started, when the treatment can be continued by any intelligent physician. The only objection to the method is the necessity for the preliminary gastrostomy. This, however, can be done by any surgeon, under local anesthesia if necessary, and often is the only hope for these pitiable cases. Yet no one would recommend the indiscriminate use of gastrostomy. The following indications seem to warrant the operation:

1. As an emergency in the face of food and water starvation.
2. In multiple eccentrically located strictures of small caliber, especially in small intractable children.
3. When an X-Ray examination is not possible.
4. In atresia of the esophagus where the joint use of the retrograde esophagoscope and the direct endoscope make it possible to

restore an obliterated portion of the gullet.

Technic.—A modified Senn operation for gastrostomy is recommended. See Surg. Clin. N. A. Feb., '24. The opening in the stomach should be midway between the greater and lesser curvatures in the avascular zone. It should be as near the cardiac end of the stomach as will make the fistula at right angles to the abdominal walls and allow the use of a retrograde esophagoscope if needed. This promotes spontaneous healing of the fistula at the end of the dilatation. A number 24 F soft rubber catheter makes the most convenient tube for the gastrostomy opening. It is cut about four inches long and is plugged with a cork which may be removed for feeding and for the passage of the small sized bougies. At first, of course, only sterile liquids should be fed the patient, which can be begun at once. The immediate adequate feeding of these pathetic patients often on the verge of death from inanition, lends encouragement to the physician and to the patient's family.

It is better not to attempt dilatation of the stricture until the anastomosis of the stomach to the abdominal wall has firmly united. From two to four weeks may be allowed to lapse, during which time the esophagus is put at rest, the ulcers allowed to heal, and a localized immunity established about the fistula, thus guarding against infection and leakage around the wound.

Swallowing the thread.—If one has not had experience this may appear a difficult thing in small children, but whenever liquids can be swallowed it is always possible to get the thread through the stricture. A soft rubber catheter with 3 feet of a loop of thread is passed through the nose and brought out of the mouth. About 6 inches of the thread are allowed to dangle in the throat, and the outside end folded and secured to the cheek by adhesive plaster. The patient is given water to swallow at frequent intervals, and the thread slackened a few inches at a time. Since the patient

can't spit the thread out of the throat it will be carried by the water through the stricture into the stomach. It may be fished out of the stomach through a Kelley cystoscope introduced into the gastrostomy opening. Often it will be washed out of the stomach by swallowing water. It may require a day or more to get the thread into the stomach. The smallest size Tucker bougie is then attached to the gastric end of the string and drawn up through stomach and esophagus. The bougie may be left in the esophagus 24 or 48 hours, contributing to the dilatation by pressing out the flexures in the stenosed canal. Gradually increasing sizes of the instrument are passed at intervals of 3 or 4 days. Too frequent passage of dilators is undesirable. There should be no hurry to feed the patient by the mouth until ability readily to swallow liquids returns. At first only small mouthfuls of fluid are sipped.

When the esophagus has been dilated up to 30 F, in small children the gastrostomy may be allowed to close and the dilatation maintained by the passage of bougies by the mouth at first every week or two and later at longer intervals. When it has been decided to allow the opening in the stomach to close, the end will be more quickly accomplished if the retention rubber tube be gradually reduced in size allowing the walls of the fistula to contract around the smaller tubes.

In conclusion, we have in retrograde bouginage, a safe, effectual, and simple method of curing esophageal strictures which can be carried out anywhere the services of a surgeon are available. After the gastrostomy and the initial dilatation, any intelligent physician can complete the dilatation with comparatively inexpensive instruments outside of a hospital. There really is no longer any need for these patients to go untreated or uncured in a large percent of cases.

In the opinion of Dr. Chevalier Jackson of Jefferson Hospital, Pennsylvania, no other known method is so safe and satisfac-

tory in the cure of these cases as the Retrograde Method with the Tucker Bougie. He claims to have had more than one thousand gastrostomies done by more than thirty odd different surgeons for this and other conditions. Dr. Shallow reports fifty gastrostomies for cicatricial stricture of the esophagus done within the past four years at the Bronchoscopic Clinic of the Jefferson Hospital.

While the discomfort and small risk of gastrostomy should always be considered the Retrograde method of dilatation of these strictures is so safe and effective that it must appeal to the good judgement of progressive physicians.

Footnote: A case of stricture of the esophagus was presented which had been successfully treated by the Retrograde Method.

DISCUSSION

DR. JULIUS H. TAYLOR, (Columbia):

When we appreciate, as I do, the proposition Doctor Rice had to face in this little child, we must give him credit for the tremendous amount of patience and painstaking care that he has given this patient. Personally, I have always been interested in these stricture cases because I was at one time associated with Doctor Robert Haggard, one of the pioneers in this work in this country. I think he has cured six cases of stricture. He had the string swallowed, as in this case, and he had a bougie with an olive; he passed a silk thread outside of the olive and then through the gastrestomy wound, and when he got against the stricture he would take the silk thread and saw it back and forth until it would gradually cut through the stricture. He was working along the right line, but of course his principle was wrong in that he had the formation of scar tissue. But he was a pioneer and everything has developed since that time.

I think Doctor Rice has demonstrated here the best and most acceptable method for the improvement of these distressing cases. He has saved a life, and we cannot fail to give due credit for it.

DR. F. M. DURHAM, (Columbia):

I used to do a good deal of this work. It is a man's job to dilate the esophagus. I remember one Sunday a little colored child was sent in. I fed him about five yards of

cord, and in the meantime I telephoned to Richmond, Virginia, to send me a Plummer outfit right away. I got the instrument threaded on the cord and went down in there, but the part that screws off came loose and I left it in the stomach. Fortunately, it left a sharp edge. I sent for Doctor Burns to help me, and we worked all day, and got it, but the sharp edge cut the thread. The child vomited that night and the end of the thread came through and they pulled it up, and when it come up the sharp edge cut the stricture wide open, and the child is still living.

I think it is a dangerous instrument, and I have not used a Plummer instrument since. DR. H. W. RICE, (Closing):

There are two or three points that I would like to emphasize. One is that the gastrostomy opening of course should be done carefully and by a competent man, and it should be placed about midway between the umbilicus and the ensiform cartilage to the left of the left rectus muscle. You should make your anastomosis at right angles with the abdominal wall. One thing about the instrument is that it is flexible. You can use the ordinary, old-time bougie with a thread through the end of it if you wish. That is a dangerous instrument to use at first, but after it is started it is easy enough.

THE IMPORTANCE OF RECOGNITION OF EARLY SYMPTOMS IN MENTAL DISEASES

By *W. M. Bevis, M. D., Medical Director
Waverley Sanitarium, Columbia, S. C.*

While perhaps less attractive to the medical student than surgery and obstetrics and far less interesting to the average physician than gynecology, pediatrics or radiographic interpretation mental and nervous disorders are so much a part of the ever broadening art of healing and so interwoven with the general practice of medicine that the same cannot be any longer considered secondary or irrelevant in the diagnosis and treatment of disease. With increased information and interest in matters relating to public health on the part of the laity there is also

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an increasing interest in mental hygiene and mental disorders. These facts and the comprehensive courses in psychiatry and neurology now being given in our medical colleges and universities should soon impel the average physician to give the elementary principles of psychiatry, at least, more attention than at present.

Some authorities hold that practically all psychoses are purely of psychic origin and others equally prominent are adherent to the conviction that the underlying causes are always the result of physical illness, injury or toxicity. A more common-sense and tenable conclusion is that all of these factors must be reckoned with and each given proper weight in the etiology of mental disorder.

As in every condition for which medical advice is sought, a complete examination of the patient is imperative. The search for hidden causes and hereditary influences should be even more diligent and thorough than in ordinary diseased conditions. The family, personal and medical history of the patient must be most faithfully recorded—amended if need be from time to time—and considered in detail. Such preliminary study of the case and a period of observation of at least two weeks, during which time a behavior chart in addition to the regular daily record is kept by competent nurses, will usually give enough information for an intelligent psychiatric diagnosis; but it must be remembered that a mental diagnosis that is in order today may be quite useless and out of date six months hence on account of the ever changing scenes and turns in the progress of the same. In considering the symptoms of any given case our goal must not be merely a classification. As so ably stated by White: "The important thing is an understanding of the patient, not the labeling of a psychosis."

In this busy, progressive, competitive age with its high pressure methods the percentage of mental cases is naturally higher than in the days of less speed and simpler living. Whether an individual will break down mentally is dependent upon in-

herited predisposition, mental stability, nervous reserve, physical health, manner of living and ability of the individual to make a working adjustment to his or her environment and situation.

Seldom does a psychosis develop suddenly. It may not be recognized in its incipency but in its slow formation undermines the physical, moral and mental foundations until the severity of the symptoms and the unnatural behavior of the patient makes the existence of a psychosis obvious to any one. But long before this stage is reached there are many little danger signals of diagnostic importance that should attract the attention of the observant practitioner. Proper evaluation of early symptoms with timely corrective treatment will often prevent serious mental impairment. The earnest medical man will not keep silent or otherwise try to evade his responsibility when he realizes such grave possibilities.

Though slow in development, mental disorders quickly become chronic and becoming so the prognosis is unfavorable but the patient may live many years in this sad state. It is the observation of those caring for those of the "wounded mind" that unless there is some improvement within the tainment at the hands of the school a subset of a psychosis hope for restored mentality grows less with each passing month. Hence the double importance of early recognition of symptoms that indicate a departure from normal mental activity—mental alienation.

A few symptoms that may show up early in mental affections are mentioned and discussed below. Some of these may also be found in the psychopathic constitution, hysteria, neurasthenia, etc., but this should not lead to the error of minimizing their importance or significance. Hysterical or neurasthenic symptoms associated with mental conditions should not mislead us. The following usually indicate a psychosis.

NERVOUSNESS is a broad an indefinite term used freely by the laity and the profession to describe any condition in which

there is mental or nervous unrest. It may be defined as the sum total of those movements and reactions of the body indicative of excitability and disturbed emotions. It is seen and mentioned prominently as a symptom in some stage of mental unbalance and is often given by patients and relatives as the first untoward manifestation.

INSOMNIA is an early sign in many of the psychoses and a most important one on account of the profound impression it makes on the patient from the beginning. They worry about not going to sleep and about waking after they have slept some, to the extent that they unconsciously stay awake. This condition is a perplexing one and improperly treated may lead to exhaustion of both the physical and mental strength of the patient.

ANOREXIA like insomnia depletes the strength of the patient. At first it may not be taken seriously. Those caring for the case think that when the alimentary canal is cleared and the digestive system be given a chance the patient will at least make an effort to tolerate food. In this they are mistaken. Food is politely refused and excuses accepted until the situation becomes alarming. As those interested become more insistent the patient shows more resistance and finally announces that he does not want and will not take any food even though he perish. They either have a morbid disgust for food or a delusion that all food is poison or has been poisoned to do them harm. This symptom nearly always accompanies depression and stands high as a method chosen by those of suicidal tendencies of bringing about the end. In this they occasionally succeed unless tube feeding is done once or twice each day. Many delusions not at first expressed have their genesis and find expression in this attitude toward food.

DISTURBANCE OF THE SEXUAL FUNCTION may be found in nervous disorders as well as in mental disease. In a person of either sex in the active period of life it is serious.

(a) Sexual impotence in the male or frigidity in the female at the age least ex-

pected and in those who are moderate in their sexual life and manner of living are evidences of a serious disorder of the nervous system. These may be either the cause or the indication of a depression and in the very nature of things form an excellent basis for the development of delusions of self unworthiness, having committed the unpardonable sin, of persecution and infidelity on the part of their life partner. Male patients thus affected have to be carefully watched to prevent self mutilation of the genitalia and suicide.

(b) Abnormal and exaggerated sexual promptings designated by the terms satyriasis in the male and nymphomania in the female frequently usher in attacks of mania. The expression of this form of mental excitement varies with the natural disposition and increased tension of the patient from veiled and suggestive hints to excessive loose, vulgar language, exhibitionism and efforts to become nude at the sight of a person of the opposite sex. More cases of rape result from this form of mania than are so reported.

TANTRUMS, unusual and unreasonable display of anger, morbid impulses and intense emotional states, are ordinarily considered as a part of the long list of behavioristic peculiarities of the incorrigible, delinquent, trouble-making group of youthful subjects handled by the juvenile courts and reformatories. However, such episodes must not be overlooked as early indications of mental derangement. The same may be found in patients of any age, but are most often observed in youth and old age. The patient has an impulse to do certain acts. He is conscious of the desire of determination deriving intense satisfaction in having his way. Being prevented the tantrum is the resultant reaction. These morbid propensities may be of a harmless nature or may endanger life and property.

HYPPOCHONDRIACAL IDEAS are present in the first stage of paranoid conditions. At this time the patient is more or less uncommunicative and occupied with the serious thought about himself. He has head-

aches, dizziness, weakness and other unusual feelings which he cannot understand. He worries about himself thinking that he is much more physically ill than he really is. This period is followed by the state of persecutory ideas when the patient is convinced that he is being misrepresented and persecuted by his enemies. Hypochondriasis is also an early symptom in other types of psychoses.

INDIFFERENCE or loss of interest in the serious things of life is many times the initial symptom in the dementia precox group. At first it may be mistaken for laziness and for this reason not be seriously considered. A young person once ambitious and energetic loses both the will and ability to do his daily tasks or fails in school work and is content just to exist without effort or concern, giving little attention to what goes on about him. Carelessness as to promises made, untidiness and disregard of personal appearance, utter indifference to household duties and to the welfare of members of the family, emphasize the pathetic situation.

EXALTATION is an emotional elation and feeling of happiness and well-being not warranted by the condition or surroundings of the patient. It may be slight and scarcely noticeable. There is a more cheerful mood, greater tendency to talk than usual and greater display of industry; or there may be such increased activity and such rapid thinking that ideas can hardly find expression even though conversation is incessant. There is a great pressure of activity, a constant flight of ideas usually referable to something seen or heard near by. Conversation rambles rapidly on without ever reaching a logical end. Expression is hilarious and dramatic. In great emotional excitement the patient breaks up furniture, tears clothing into strings, laughing and shouting all the while.

DEPRESSION is the opposite picture of exaltation. The two are closely related and express extreme mood swings. The two may occur alternately in the same patient sometimes within a short time. The chief features of this mental attitude are diffi-

culty of thinking, slow movements, slow speech in a low tone often just above a whisper and by preference answering questions only in fewest possible words, sadness and hopelessness often with delusions of the self-accusatory type and expression of their condition being incurable on account of some great sin. Those having even a mild depression may be actively suicidal.

CHANGE OF PERSONALITY may appear as an initial symptom or later in the development of mental illness. With this change in the habits and character of the person affected there is usually a lack of insight and defective judgment. A conservative business man of fifty whose life has been characterized by honesty, thrift and sobriety, whose success, moral character and business acumen has won for him the honors and confidence of all who know him, making his name a synonym of all that is safe and upright suddenly becomes a "plunger", a spend-thrift. His conduct and actions do not ring true to his former self. His conversation and line of thought appear altogether at variance with his usual bearing. This transition may be sudden or gradual but serious in either case. Aside from the seriousness of the situation as relates to the patient, the family and his business associates may upon investigation find his business hopelessly involved, his estate insolvent and his dependent ones penniless. An early examination by a competent medical man, who takes nothing for granted and makes use of all the modern diagnostic methods, would have undoubtedly revealed the seriousness of the case both from the physical and mental standpoint. The proper interpretation of this insidious mental sign might have saved him. A married woman of more than average intelligence whose home life has been considered ideal and happy seems to lose interest in home, develops queer ideas about religious matters, takes up new and unwholesome habits and becomes so indiscreet that her relatives and neighbors are astonished. Investigation reveals the fact that she has been mentally ill for several weeks. She

has no insight into her true condition and believes that members of her family and not herself are mentally irresponsible. A gradual change of personality, the initial symptom was unrecognized.

CONVULSIVE ATTACKS. It is generally recognized that epilepsy produces mental deterioration but the tendency of those afflicted with this malady toward automatic and unconscious actions of violence for varying periods before and after attacks or threatened seizures is not sufficiently emphasized. There are those who have attacks of a mild type at night and are possibly not recognized as epileptics. But the confusion and loss of consciousness incident to these attacks are just as great and fraught with dangerous possibilities as those having violent fits. There are also those that have no seizures but have the confusion and irresponsible periods known as epileptic equivalents. There is a complete loss of memory just as in true epilepsy for hours and sometimes days. On account of criminal tendencies and mental complications the recognition of such states is important.

Authorities as to the care and treatment of neuro-psychiatric patients are practically unanimous in the opinion that treatment at home in most cases is futile. Early institutional care offers the best chance for recovery. This is due to the benefit of a change of environment, regular habits, occupational diversion and play, hydrotherapy and other modern treatment in an atmosphere removed from sympathetic over-indulgent relatives who mean well but lack understanding of the nature of the malady.

Since every paranoid state is a potential homicide; every individual in a real tantrum is liable to do harm to property or person; every case of maniacal excitement a possible criminal act committed in high glee; every depression a possible suicide and every unrecognized psychosis tending to complicate the interests of the patient, his family and business relations the medico-legal importance of early symptoms suggestive of the "unguarded" mind is appar-

ent. Our duty then is clear. Do not overlook the initial indications of a psychosis, and its existence established insist upon early institutional treatment. Such a course will protect the interest of all concerned and offers the best chance of recovery. As a guardian of the health of the commonwealth every physician has a responsibility in this part of his daily duties which must be recognized and discharged.

DISCUSSION

DR. J. M. BEELER, (Columbia):

It is surprising to note the lack of interest in mental conditions in the State. In one institution last year they treated 3600, and you have around 200 in the State in other institutions, and you have possibly 8 per cent. of mental defectives in children in the State. A clinic opened in a hospital in one of the cities of the State has treated since January 31st nearly 200 patients in one town alone. It is interesting to note the number of patients who are not recognized by the general public.

I can only discuss the paper from the age in development of mental disease. Mental disease has certain ages as well as physical disease. In epilepsy you will notice the convulsions early in some form of nightmare. Frequently the beginning is overlooked. Mental disease may be noted in childish habits—in walking and talking. At that time there is very little you can do, but if possible the child should be examined. They are recommending now that every child who has convulsions in early childhood should have spinal puncture. If it is an injury at birth the spinal puncture will relieve pressure and the child gets a certain benefit from that. In puberty you have a hysteria and epilepsy may develop. The hysterical episode does not mean that you can tell the child's parents to go home and treat the child rough and it will be all right. It should be investigated. Frequently it is the beginning of dementia praecox, a psychoneurosis or epilepsy. From 18 to 30 you have dementia praecox characterized by change in personality often emotional instability, which always requires examination. The child of eight who has difficulty in making its grades, who falls back, should be examined. That is the time when something can be done for him when three or four years later it will be different. From 30 to 40 if there is a change in personality, is a

man is lax in business, look out for cerebrospinal syphilis. Any depression in any person between 40 and 50 should be investigated. If not, they will become institutional cases. From 55 to 65 look out for pre-senile and senile conditions. You will notice senile conditions by gradual deterioration. Arteriosclerosis cases will respond to treatment before they have cerebral hemorrhage; after hemorrhage the outlook is poor.

Interest in psychiatry has picked up some in the South in the last six or seven years. It has been very interesting the great number of cases which have presented themselves at our clinic in the past few months.

DR. W. M. BEVIS, (closing):

I appreciate being here to participate in this the first meeting of the South Carolinian Medical Association that it has been my privilege to attend. I am glad of Doctor Beeler's discussion of the paper and only wish there had been greater discussion of psychiatric subjects. But if you have gotten anything out of the paper, or if you can get

anything out of it by careful perusal when it is published, I hope you will take cognizance of these early symptoms. These are just a few that stand out. But I hope the time is not far distant when psychiatry will have its rightful place and rightful consideration at the hands of the average practitioner, and that he will study to make himself a worker that needeth not to be ashamed at least of his knowledge of the elementary principles of psychiatry. I think the greatest trouble with this subject is that those who have written on it have written in such a way, and the writings are so voluminous that the average medical student feels he has not the time to wade through such a mass to get such a little bit of information. But I hope the time is coming when we will have this in a short, concise form in which the elementary principles of psychiatry and the symptoms will be presented in full in such a way that the medical man will enjoy reading it as much as he now enjoys reading about obstetrics and such commonplace but interesting conditions as pyloric stenosis.

PARTURITION A SURGICAL PROCEDURE

*By M. Pierce Rucker, M. D., Richmond,
Virginia.*

If there is any one thing a Southern man has a right to be proud of, it is his treatment of women. It is true of all walks of life but it is especially true in Medicine. The sufferings that are peculiar to women were unnoticed, certainly uncured until a group of gifted Southern men taught the world a new branch of Medicine. The names of Ephraim McDowell¹, Mettauer², J. Marion Sims³, Thomas A. Emmett⁴, Nathan Bozeman⁵, J. C. Nott⁶, and T. Gaillard Thomas⁷ are dear to us all.

In Jefferson, Ga. in 1842 Crawford W. Long⁸ also showed that the Southern doctor is ever elert to relieve suffering humanity. There is no doubt as to Long's priority in the use of anesthesia, but as Dr. Welch⁹ in his ether day address at the Massachusetts General Hospital says his discovery had

no influence upon the progress of medicine because he did not publish it, and so the credit goes to another. Nevertheless, I glory in the fact that the first anesthetic was used in our Southland, and that its use was actuated by love of humanity and not by any thought of glory or monetary gain.

As a native of Virginia, where Ephraim McDowell was born and where as early as 1809 William Baynham¹⁰ had done two successful operations for ectopic pregnancy, I am proud to come with an obstetric message to the State that is the birthplace of Marion Sims and where in 1816 John King¹¹ operated upon a case of abdominal pregnancy and saved both mother and child.

The title of my paper was suggested by a paragraph in an address by Sir Victor Bonney¹² upon the "Continued High Maternal Mortality of Childbearing," in which he says that labor is a surgical operation and even if a woman performs it upon herself, it should be done in conformity with surgical principles. While Sir Victor

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Bonney limits himself chiefly to the consideration of the preparation of the patient, I take it that there are other surgical principles equally as important, such as: maintenance of the patient's resistance, time of operation, choice of method, choice of anesthetic, and avoidance of shock and hemorrhage. We must remember that labor is really a two stage operation, first, the opening of the womb and second the emptying of the womb. Furthermore, the life and health of two individuals are directly involved.

"TIME OF OPERATION

When a patient is pregnant there is no question as to the need of the operation. The uterus must be emptied in some manner and at some time. The time of the operation is an important question and one that often gives the patient great concern. Pregnancy is said to be of 280 days duration. However there is considerable variation. The English law¹³ recognizes a possible duration of 320 days. Zweifel¹⁴ in Leipsic found that 0.39% of the pregnancies lasted more than 321 days. Vignes¹⁵ in a recent study of hospital deliveries in Paris (from December 29, 1922 to September 16, 1923) found that the live births among 983 primiparae to be distributed as follows: Between 200 and 210 days 2 cases; between 210 and 220 days, 7; between 220 and 230 days, 9; between 230 and 240 days, twelve cases; between 240 and 250 days, thirty-one; between 250 and 260 days, sixty-one; between 260 and 270 days, one hundred and two; between 270 and 280 days, two hundred and forty nine; between 280 and 290 days, two hundred and seventy-nine; between 290 and 300 days, one hundred and fifty four; between 300 and 310 days, fifty-one; between 310 and 320 days, eighteen and above 320 days, eight. The duration of the 820 multiparous live births is very similar as can be seen from the dotted line in the accompanying chart.

It is a common observation of obstetricians doing consultation practice that

most of the difficult cases are those that have "gone over their time." O'keefe¹⁶ in a recent paper has shown the many bad effects of postmaturity, it is more logical to set the date for confinement in accordance with the size of the fetus, which after all, is the important factor in delivery than it is by any rule based on duration of pregnancy. The only question is, can this be done with sufficient accuracy to preclude the possibility of a premature baby. Dr. Charles Reed¹⁷ and others¹⁸ have shown that this is practicable. The Ahlfeld³², McDonald¹⁹ and Parret³³ measurements give one an accurate idea as to the size of the child. My own feeling is, that except in cases of obesity, hydramnion and multiple pregnancy, this is a better method than that of counting a variable length of time from an uncertain date. It certainly ought to be used in those cases that are thought to have gone over their time and in those cases that seem unduly large.

About a month before the expected time of delivery as determined by either Nae-gale's rule or the date of first feeling fetal movements, an abdominal examination is made and the fetus mapped out and measured. In all except the obese and those with hydramnion or twins, this can be done with sufficient accuracy to warrant setting a definite date for confinement. One should always bear in mind the possibility of a multiple pregnancy. If the uterine content is larger than one would expect and especially if it be out of proportion to the size of the fetal head the diagnosis of twins is justifiable. On several occasions I have been led to a correct diagnosis in this way when I was unable to make out the classical signs of twin

This is not absolutely true—Several instances are mentioned in Gould and Pyle's "Anomalies and Curiosities of Medicine" (W. B. Sanders 1900) pages 63 and 64 where a woman has carried an ossified fetus for years. Caldwell's case (Edinboro M. & S. J. 2:22, 1806) carried such a fetus for 60 years and Camerer's case (Collection Acedemique), iii:388, 1775) for 46 years.

pregnancy, i. e. three fetal poles and two fetal hearts of different rates. On the appointed day the uterus and fetus are again measured. The McDonald (tape line measurement from the top of the symphysis to the top of the fundus) should be 35 cm. The Ahlfeld (pelvimeter measurement between the same points) should be 27 cm. and the Parret (the occipito-frontal diameter of the fetal head plus the thickness of the abdominal parietes) 11 1-2 cm. In case the head has descended into the pelvis the Parret can not be taken and the other measurements are proportionately less. In this case a good idea as to the size of the head can be obtained by bimanual examination. The condition of the cervix is an added check. When the patient is at term the cervix is succulent and usually partially dilated. If it is not already dilated it is so soft as to be readily dilatable with the finger.

CHOICE OF METHOD

The majority of patients will dilate spontaneously at term. Those who do not, and those who are toxic and do not respond to appropriate treatment promptly should have labor induced. The time honored method is the administration of quinine and castor oil. However it is uncertain in its action. Watson²⁰ has devised a schedule of using quinine castor oil and repeated doses of pituitrin which in his hands is effectual in 90% of his cases counting the cases that responded to the second and third attempts. The pain is said to be greater than spontaneous labor pains²¹. He does not think that the pituitrin adds any risk to either the mother or child. There is one feature of drug induced pains that does not seem to be mentioned in obstetric literature and that is, the pains become bearing down in character early. If the cervix does not dilate the abdominal muscles force the uterus down on the perineum and keep it there to the serious injury of the cardinal ligaments of the cervix. I have had two cases of prolapse of the uterus from this

cause in patients who had no perineal lacerations.

Of the mechanical means the bougie is the simplest and easiest to use. With a stylet it can be introduced under the guidance of the eye with very little vaginal manipulation. However it is slow in its action and there is some evidence that it may cause premature separation of the placenta²².

The Voorhees bag is more certain and is quicker in its action. When the cervix is "ripe" it is as easy to place as the bougie. It is the operation of choice in placenta previa and malpositions with only partially dilated cervix. When a well equipped hospital is available the results with the bag are so good that it has become the method of choice in the great majority of my cases. My technic is as follows²³: Before making any vaginal examination the patient is prepared as if for delivery and everything is gotten ready for the introduction of the bag. The instruments needed are, a No. 5 Voorhees bag and forceps for its introduction, a bivalve speculum, uterine dressings forceps several hemostats, a minim glass an ounce medicine glass and some method of filling the bag. I use an 800 cc. irrigating set fitted with a perforated rubber stopper. The pump and gauge from a sphygmometer is connected by means of a glass tube that extends just through the rubber stopper. Every thing except the rubber stopper, pump and gauge is sterilized by boiling.

The patient is given 1-6 gr. morphine half an hour before hand. Into the minim glass is poured 30 minims of a 10% sterile cocaine solution and in the medicine glass is prepared a 1-500 acriflavine solution in normal salt solution. Thirty minims of this are added to the cocaine solution making a 5% cocaine solution in 1-1000 acriflavine. 3 1-2 drams of normal salt solution are added to the acriflavine solution so as to make it a 1-1000 solution. After the usual soap and water scrub-up and bichloride rinsing, the vulva and the adjacent skin are painted over with the acriflavine solution and a cotton pledget soaked in half of the cocaine solution is placed for three or four

minutes in the introitus. I usually make use of this time in putting on my rubber gloves. The bivalve speculum, lubricated with tincture of green soap is now introduced and the cervix and upper part of the vagina swabbed with acriflavine. The excess of the solution is removed with sponges and the remainder of the cocaine and acriflavine solution is poured into the vagina through the speculum. The Voorhees bag is now tightly rolled up into a pointed cylindroid and clamped with a Champetier de Ribes balloon forceps. The speculum is now removed and the most of the cocaine escapes at this time. With the index and middle fingers of the left hand the cervix is located and if necessary dilated. Sometimes it is necessary to draw the cervix forward so as to bring it in a line with the vagina. The stem of the bag is connected by means of a glass nozzle with the irrigating set, and, with a pressure of from 150 to 200 mm. of mercury in the irrigating jar, the bag is rapidly filled with sterile water or lysol solution. The Champetier de Ribes bag forceps are removed at the beginning of the inflation and care is taken to see that the bag is within the cervix and not above the presenting part.

ANALGESICS

The patient is now put back to bed and is given 1-200 gr. of hyoscin. This dose is repeated in an hour and then as often as is necessary to make the patient doze between pains. She is also given a 5% glucose solution by the drop method per rectum. Occasionally there will be a patient with a very thin cervix that dilates rapidly while the bag is being inflated. Such patients will not give you time enough to get them under the influence of hyoscin and I give them instead, ²⁴ Gwathmey's Formula No. 3 by rectum (Ether oz 2 1-2, alcohol dram 2, quinine grs 10 olive oil q. s. oz 4). This has not, in my hands, given so good an analgesia as the hyoscin, but it acts quickly and in the cases described above is the best remedy we have as yet.

SECOND STAGE

When the cervix is nearly fully dilated, or in other words when the bag is nearly out of the cervix (this can readily be determined by rectal examination) the patient is given 35 cc. of a 1 1-2% solution of novocain containing 5 drops of adrenalin, into the sacral canal. The technic is the same as was originally described by Cathelin²⁵ and is well pictured in Labat's²⁶ book. It is important to emphasize that this is an extradural administration and is therefore free from the dangers of spinal or intradural anesthesia. Only once have I penetrated the dura. This was in a negress with a very small pelvis. I distinctly felt the needle penetrate the membrane and when I withdrew the stylet, spinal fluid escaped. I simply withdrew the needle until fluid no longer escaped and I was unable to aspirate any with the syringe, and gave the injection in the usual manner.

In over 90% of the cases sacral injection of 1 1-2% or 2%, novocaine gives excellent anesthesia, and what is even more important extreme relaxation of the perineum and the cervix. The tone of the body of the uterus is somewhat increased. In exceptional cases the increase of tone is so great as to preclude doing a version. It takes effect in 15 minutes is at its height in 30 minutes and lasts from 1 1-2 to 2 hours. This gives plenty of time in which to set up the delivery room. The patient is taken to the delivery room in comfort and does not disturb the whole floor as she is wheeled down the corridor. Her preparation this time consists of a soap and water wash up, bichloride rinsing and painting with a 1% mercurochrome. The patient is made comfortable with the legs semiextended. After she is draped the anesthesia is tested by pinching the perianal skin with a pair of hemostats. If there is any sensation or if the patient is nervous or apprehensive she is given just a little chloroform. The few cases in which I have used ethylene make me believe that this would be an ideal anesthesia for this purpose, but I must con-

fess that I have been scared off from its use by the two explosions that Heaney²⁷ reports.

When the cervix is fully dilated and the patient is properly anesthetized, the easiest way to deliver the patient is by Potter's²⁸ technic in the great majority of cases. In a certain number of cases with the head well down in the pelvis and the uterus tonically contracted I resort to forceps rather than subject the patient to enough general anesthetic to relax the uterus. The third stage of labor is handled, or rather not-handled, in the usual way. The placenta is allowed to separate and is then expressed as gently as possible. If there is any laceration it is repaired with a continuous suture of No. 2 cat gut. In all cases, whether there is any visible laceration or not, I take what I call my prophylactic suture²⁹ of silk worm gut so as to support the levator ani, and secure it with a perforated shot. This is removed when the patient comes back in four to six weeks for her postpartum examination. Occasionally the shotted suture is uncomfortable and then it is removed any time after the eight day.

CONTRAINDICATIONS

The contraindications are: a pelvic inlet that does not admit the head and a funnel pelvis. There is no question as to the proper treatment in the former contraindication. The latter condition is always a problem. In the first place it is often unrecognized until late in labor. In the second place posterior positions are very common with this type of pelvis. In the third place uterine contractions are apt to be inefficient. In the fourth place it is very common for such patients to go over their time and have large babies. I do not know of any good way of handling such cases. The fetal mortality is high and deep perineal lacerations are frequent. If the contraction is at all marked the patient should have her choice of (1) Cesarean section (2) spontaneous labor with the likelihood of forceps delivery and the possibility of pubiotomy and (3) labor induced with a bougie

or small bag, with the likelihood of forceps delivery and the possibility of pubiotomy if the head seems too large for the pelvic outlet. In the event she chooses either 2 or 3, sacral anesthesia for the forceps delivery is a great boon and greatly minimizes the perineal lacerations.

ADVANTAGES

The advantages of the method of bags and version at term are that it takes obstetrics out of the field of emergency surgery, it does away with the risks of precipitate labor, prolapsed cords, over-size babies, mal-position of the fetus and minimizes the risk in placenta previa. Some time ago I delivered an out of town patient with a central placenta previa. There had been no loss of blood before she entered the hospital by appointment, and of course the condition was unsuspected. Vaginal examination disclosed a soft cervix entirely occluded by placenta. When the bag was placed extra-ovularly, she lost only a tablespoonful of blood. There was no unusual bleeding at delivery although I had to go up a considerable distance to get beyond the edge of the placenta before rupturing the membranes. The delivery was easy, and both mother and child got along as well as any patients I ever had.

The chances of infection are less because the patient is properly prepared and is properly safeguarded against suffering and exhaustion. The birth canal is left in infinitely better condition because of the thorough relaxation and because the levator ani is not overdistended by the presenting part for a considerable time. Burch³⁰ has emphasized the impossibility of preventing a relaxed vaginal outlet in such conditions. The risk of postpartum hemorrhage is lessened because there has been no overdistention of the uterus, exhausting labor pains nor deep general anesthesia. The recovery of the mothers is all that could be desired. They do not feel like anything has happened to them and it is difficult to keep them in bed. (I have long since ceased trying.) The babies are less fretful and thrive better.

They have round unmodelled heads. There is a growing feeling that a modelled head is a damaged head. (Calkins ³¹.)

RESULTS

I might burden you with figures as to my results but statistics are dry at best and are never believed unless they are especially bad. The maternal morbidity in the past year, since I have been using this method in its present form, has been practically nil. Three patients had pyelitis in their pregnancies and in all three there was a lighting up of the process in the puerperium. One case had a cystitis and pyelitis without previous history of any urinary infection. Two cases had a non-suppurative mastitis after leaving the hospital. The others were afebrile during the entire puerperium.

Fetal mortality as it has been reported is such a variable affair that any discussion of it would carry me too far afield at this time. Unfortunately I have had some fetal deaths. They are fewer than they were when I was doing orthodox obstetrics. In recent years I have gotten autopsies in practically all of them and this attracts more than double attention to them, for the deaths are reported at the various staff meetings and the autopsies are reported in detail. In spite of this, those who know the most of my work are the greatest advocates of the method.

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PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

From time to time a new idea or theory gains some headway in the practice of medicine, and even though later on it may be proven to be without sufficient basis, and eminent authorities thunder against it, yet for many years this mistaken theory holds sway. So it is with the use of certain drugs which have proven to be useless. A good bit of prescription writing is probably done more from habit than through reasoning, and many doctors are accustomed to write for drugs or various mixtures without any clear idea as to why, or without recalling that these substances are valueless. Of course no one is willing to relinquish agents which are of merit, regardless of whether the drug has been established in the laboratory or at the bedside. But we do know that a large part of our materia medica has been handed down slavishly either in the lecture room or in books, and that most of our inherited teachings in the therapeutics is in reality worthless. In the December issue of the Southern Medical Journal (17:919) John A. Foote in an essay entitled Therapeutic Fetishism in Pediatrics clearly and convincingly shows us that many of our common drugs should be discarded. Even the casual reader though he still holds to his own favorite delusion will be convinced of the many errors of his brother practitioners.

Some few years ago pediatricists were awakened to the fact that they had been failing to recognize that a large number of fever cases were due to pus in the pelvis of the kidney. Having advanced a few steps the disease was labeled pyelitis or

pyelo-nephritis and it was felt that there was nothing more to learn as the pathology, diagnosis and therapeutics had been mastered. But of late it appears that many workers feeling dissatisfied with the imperfect state of our knowledge had been forging ahead. Henry F. Helmholz in the Am. J. Dis. Child. (28:700, Dec., 1924) gives an account of some experiments in therapy using rabbits; and of some clinical work with children. He concludes that in rabbits the output of urine is increased by the use of alkalis; that in a series of patients the pyelitis was definitely improved by the use of urotropin, even though it was in low concentration. Many men have given up the use of urotropin so this point is of great interest. Further in his work he found that calcium chlorid and ammonium chlorid were of great value as acidifying agents.

While many cases of pyuria in infants and children with or without treatment in the course of weeks or months clear up entirely, yet it is not at all unusual for a case now and then to hang on for years. Where pyelitis does not speedily improve under adequate treatment there must be some factor that has escaped observation. Richard M. Smith in an article entitled Roentgen-Ray Examination in Diseases of the Kidney, (Am. J. Dis. of Child. 28:678) reviews the subject of abdominal pain especially in connection with pyuria. He cites various cases that were more or less chronic and gives roentgenograms and pyelograms that were of value in making the diagnosis. He states that there is an intimate relation between recurring attacks of abdominal pain

an pyelitis, and also that renal stone and congenital malformations are not rare. The conclusion based on his study is that "Children who have recurring attacks of pyelitis; or chronic pyelitis, if it fails to yield to treatment, especially after the period of infancy, or who have recurring attacks of abdominal pain which are not explained adequately on some other basis, should have roentgen-ray studies made of the kidney, including cystoscopy and pyelograms."

Along the same lines as Dr. Smith, but from a rather different angle Dr. H. G. Bugbee and Dr. Martha Wollstein have been doing some valuable pathological work. Their article entitled Surgical Pathology of the Urinary Tract in Infants appears in the *Journal of the American Medical Association* (83:1887. December 13, 1924). This

is a review of nearly five thousand autopsies, undertaken with a view of finding out the frequency and importance of urologic malformations and anomalies. The result of their investigation is sufficient to make us realize that modern urologic investigation is often a *sine qua non*, in clearing up obscure cases. As W. F. Braasch has said "If every case of persistent pyuria is carefully investigated, anomalies will be discovered more frequently." Further a persistent pyuria lasting for many months demands a cystoscopic examination. It has been definitely proven that interference with drainage by abnormal anatomical structures is often the basis of renal infection. In other words while bacteria are the exciting cause, yet it is necessary in order to bring about recovery that the underlying factors should be recognized.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

INFLAMMATORY CARCINOMA OF THE BREAST

Lee & Tannebaum report 28 cases of inflammatory carcinoma of the Breast in the *S. G. & O.* December, 1924.

Inflammatory cancer of the breast is an unusual phenomenon. It is frequently referred to as an acute carcinomatous condition. It is rare, constituting but 1.3% of all breast cancers. Often it is of a fulminating type, running speedily to a fatal termination.

Clinically, the breast increases in size, from a diffuse involvement and usually it is present in a pendulous breast. There is burning or smarting and a sense of heaviness. The overlying skin is brawny, reddened or flushed, hot and tender on palpation. As in other breast carcinoma, the nipple retracts as the lesion advances. The entire breast may be involved within a few

weeks. Early, the axillary glands are involved, as are the supra-clavicular ones on the corresponding side.

The skin itself sooner or later becomes infiltrated or thickened and its periphery is distinctly elevated from the contiguous skin. There may be a slight leukocytosis and occasionally there is a slight afternoon elevation of temperature. Late in the conditions is no tendency towards breaking down "en masse".

Metastasis to the lungs usually occur late, but when once started, progress rapidly. The inflammatory nature of the lesion persists to the end.

Of the 28 cases reported, there was a history of trauma in only 2. The average age was 44.6 years and the inflammatory change or aspect occurred within the first three months. In only 5% of the cases had lactation been present at one time or another.

This condition should be differentiated from breast abscess, true erysipelas, tuberculosis of the breast, gumma, or pagets disease of the nipple.

Microscopically, there is a distinct and diffuse permeation of dermal lymphatics and more rarely of blood vessels in the dermal and subcutaneous tissues.

Bacteriologically, no specific organism has been isolated.

Biochemically, no definite regular changes in the blood have been found in this type of cancer. The life expectancy is probably not greater than 2 years and the average duration of the cases, after admittance to the hospital, was 8.3 months.

Surgery is distinctly contra-indicated. Primary radiation gives a more favorable prognosis for a prolongation of life.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., CHARLESTON, S. C.

Dr. J. H. H. of Seattle, Wash, in an article called "The Significance of Bacteriemia Following Mastoid Operation," in the Eye, Ear, Nose and Throat Monthly, August, 1924 and in the November, 1924 number seems to reveal another view point Bacteremia and Chills after Mastoideotomy.

The opinion that all or very nearly all the cases needed a lateral sinus operation, has been fairly often expressed by the best of Doctors. In recent years that opinion has been more or less questioned and modifications expressed. He quotes many authorities for and against and many cases for, with the following conclusions, "the all-important problem of distinguishing between cases which do and do not require operation. It must be realized that the great majority of otologists do not have within their practice a number of these cases sufficient to create a mature judgement. Their decisions rest, therefore, largely upon the reported experience of others as found in the literature.

From my own limited experience and from the mass of literature reviewed the following criteria are offered as positive indications for operation upon lateral sinus and jugular vein.

(1) The general condition of the pa-

tient. If he is extremely sick or toxic and is daily getting worse.

(2) The temperature curve. If this is going higher each day and the diurnal variation is increasing.

(3) Blood cultures. If the bacteriemia is persistent and the number of colonies per cubic centimeter is increasing.

(4) White blood counts. If the count is daily getting higher.

We should add that if the above indications are positive except that no bacteremia is demonstrated the operation should be performed anyway. From favorable case reports it would seem advisable to give a blood transfusion while working out the diagnosis.

In a borderline case, a persistent bacteremia will enable the otologist to earlier decide the necessity for operation. On the other hand, with such a case a persistent negative bacteremia will make one think more strongly of some other complication, especially of erysipelas."

In the November number he quotes another case with the following conclusions, "This case emphasizes that a watchful conservation is needed in post-operative bacteremias. It reminds us that not all cases of post-mastoideotomy chills, septic temperature, and bacteremia require operation upon lateral sinus or internal-jugular vein."

SOCIETY REPORTS

ANNUAL MEETING—BATESBURG-LEESVILLE HIGH SCHOOL

10 A. M. Sharp. Wednesday, January 14th, 1925.

1. Meeting opened by the president.—Introduction of Guests.

2. Roll Call.—(Payment of Dues).

3. Reading of Minutes.

4. Clinics and Clinical Reports.—

a. Case Reports with Lantern Slides—Thymus Diseases in Children, Drs. Bristow and T. A. Pitts.

b. Report of Ano-Rectal Cases.—Dr. F. M. Durham.

c. Report of Hair-Lip Cases.—Dr. B. H. Baggott.

d. Pellagra Case Report—Dr. Ranson Timmerman.

5. Papers and Essays.—Our invited guests, are Dr. E. G. Ballenger, Urologist, Atlanta, Ga. and Dr. E. A. Hines, Seneca, S. C., their respective subjects being,

a. "The Management of Ureteral Calculi,"—Dr. Ballenger.

b. "An Outline of a Program for Organized Medicine in South Carolina,"—Dr. Hines.

c. "Head Injuries,"—Dr. Harmon. Discussion opened by Dr. Bunch.

d. "Malnutrition in Children,"—Dr. Dotterer.

Discussion opened by Drs. Andrews and E. W. Barron.

e. "Observations in Nose and Throat Work,"—Dr. Quattlebaum.

Discussion opened by Drs. Fishburne and Mikell.

f. "Deep X-Ray & Radium Therapy in Uterine Conditions,"—Dr. F. D. Rodgers.

Discussion opened by Drs. A. E.

Shaw, R. W. Gibbes, R. E. Seibels. g. "Some facts about Cancer,"—Dr. J. H. Taylor.

Discussion opened by Drs. LeGrande Guerry, J. R. Boling.

6. Dinner.—(Place to be announced at meeting.)

7. Unfinished and New Business.

8. Report of Committees.—Special Reports by Committees on Necrology.

9. Placee and Suggestion for Program for Next Meeting.

Clinical Reports and Discussions are limited to five minutes. Fifteen minutes being allowed for the presentation of Papers and Essays. M. H. Wyman, President.

F. M. ROUTH, Secretary.

MEETING OF TRI-STATE MEDICAL ASSOCIATION

The twenty-seventh annual session of the Tri-State Medical Association of the Carolinas and Virginia will assemble in the Auditorium of The Jefferson Hotel in Richmond on Wednesday, February 18, 1925, at ten o'clock in the morning. The meeting will cover that day and the following day, and there will probably be a brief session on Wednesday morning. Many doctors believe, and with adequate reason, that Richmond is the best medical convention-city in the South. Why not? In that city many of the South's doctors got their medical education; to that city many of them send their patients for reference to specialists; and all people look upon Richmond as hallowed by the sacrifices of a great war.

The Tri-State Medical Association believes that it has succeeded in becoming a pure medical society. It has no other concern than the dissemination of knowledge designed to be useful in the prevention and

the cure of disease. It is concerned only with the promotion and the preservation of good health. It has no interest in politics, medical or otherwise.

At the last meeting of the Association a resolution was adopted by which the number of papers on the program is to be limited to twenty. Surely this number of papers will give ample time for discussion. The Virginia members of the Association are withholding requests for a place on the program until the members from the Carolinas have had an opportunity to submit their titles. The City of Richmond will welcome you. Bring your medical neighbor.

F. H. McLeod, President,
Florence, South Carolina.

J. K. Hall, Secretary-Treasurer,
Richmond, Virginia,

MEDICAL SOCIETY OF SOUTH CAROLINA (CHARLESTON)

PROCEEDINGS OF MEETING DECEMBER 16, 1924

The Annual Meeting of the Medical Society of South Carolina was held at the St. John's Hotel on December 16th. The majority of the members were present on this occasion. The chief business transacted was the election of officers for the coming year. As the President and Vice-President are elected biennially, Dr. Chas. P. Aymar, President, and Dr. John F. Townsend, Vice-President, will hold these positions. The following officers were elected:

Dr. W. Atmar Smith, Secretary; Dr. Jos. H. Cannon, Treasurer; Dr. H. H. Plowden, Librarian.

Dr. O. B. Chamberlain was elected to fill the vacancy on the Board of Censors. Dr. G. McF. Mood was elected to fill the vacancy in the Delegates for the State Association.

After the conclusion of business, the meeting adjourned, and the members and their guests repaired to the Banquet Hall for the Annual Banquet.

W. A. Smith, M. D., Secretary.

DARLINGTON COUNTY MEDICAL SOCIETY MEETING

At the regular Quarterly meeting of The Darlington County Medical Society held on the evening of December, 19th the following officers were elected for the year 1925:

President, Dr. A. B. Hooton, Darlington, S. C.; First Vice-President, Dr. C. C. Hill, Darlington, S. C.; Second Vice-President, Dr. R. B. Stith, Lamar, S. C.; Treasurer, Dr. J. W. Willcox, Darlington, S. C.; Secretary, Dr. J. T. Coggeshall, Darlington, S. C.; Censor, Dr. W. A. Carrigan, Society Hill, S. C.

Dr. W. L. Byerly, of Hartsville, was elected delegate to The South Carolina Medical Association and Dr. J. T. Coggeshall as alternate.

Dr. J. M. Willcox, of Darlington, was received as a member of the Society.

Julian T. Coggeshall,

Secty. The Darlington County Med. Soc.

CORRESPONDENCE

Summerville, S. C., December 18, 1924.
Editor Journal:

A'propos of sundry articles in your last issue: towit, those of Drs. Sease, Baker and Sparkman, "the time has come," as the walrus in supposed to have asservated, "to speak of many things." Doubtless a survey of these articles on such widely different subjects as "An Epidemic of Gastro-intestinal Manifestations at Kingstree." (Sease) "Some Considerations in the Treatment of Appendicitis." (Sparkman); and "Significance of Gastric Hemorrhage" (Baker) would make the "thoughtful reader" (presuming that such a reader would read this letter) wonder what possible point of contact could be found between them. Need I answer that those few inches of the surgeon's "pabulum vitae" known as the vermiform appendix constitutes this "point".

Starting, then from Dr. Seas' angle: Over a period of several months, we have had an epidemic associated with gastrointestinal symptoms of varying intensity, which, for want of a better name, and accepting a lay appellation, we have termed "Devil's Grippe." This from the standpoint of both doctor and patient, has fitted the disease like a bathing suit. Frequently this disease is ushered in with a chill or chilly sensation, followed by a rise of temperature, increased pulse rate, etc., but the marked feature is the intense abdominal pain, most frequently along the lower border of the ribs. Along with this, frequently there was diarrhoea, and less frequently nausea. These cases present no particular difficulty in diagnosis, but in a considerable number of cases the pain instead of being along the costal border was confined to the lower quadrants of the abdomen, particularly the right, and associated with this, in several cases, we found both nausea and constipation, suggesting appendicitis so strongly that only the comparatively low

blood count and differential, with less rigidity than one would expect in such an apparently acute case, saved us from whacking off the necks of a number of absolutely innocent appendices. Indeed, to be quite frank, I am not quite sure that one or two, convicted on insufficient circumstantial evidence, were not prematurely executed. In one case, referred by a thoroughly competent man, with a very positive diagnosis of appendicitis, I removed what appeared, macroscopically to be a slightly inflamed appendix, but the persistence of a temperature ranging up to 102° F. to 103° for two or three days after operation, with no operative reason therefor, made me doubt the guilt of the appendix. However, the owner of the appendix had a comfortable convalescence and is thoroughly well pleased to be rid of his appendix, so why worry? I am simply calling attention to this condition in the interest of that considerable minority of the public who have a more or less irrational fondness for their various supposedly useless viscera and appendages and who show symptoms of the "Show me" spirit when it comes to their removal.

Now, as to Dr. Baker's angle: I simply want, from my own limited experience, to corroborate his statement as to the diseased appendix being a possible cause of gastric hemorrhage and briefly relate such a case in my practice.

Some years ago, I operated on a colored woman whose attending physician stated that she had suffered from repeated and severe gastric hemorrhages during a period of several years. X-Ray examinations failed to show anything pathological except the possibility of gall stones, but figuring that this woman wasn't having these hemorrhages just for her health, I determined to open her up and look for trouble—and any surgeon knows that trouble is one thing he can almost always find in a woman's

abdomen. Through an upper right rectus incision, I examined, stomach, gall bladder, and various other organs with whom I had a more or less intimate acquaintance, without finding anything in the least suspicious. Finally, I looked up my old and tried friend, the Vermiform Appendix. There it was, just where it should be, but very small and inoffensive looking—not over an inch and a half in length, and so innocent in its appearance that I couldn't possibly imagine it harming any one, let alone the one who had nurtured it throughout all these years; but I felt that I must give my patient a "run for her money" (the same being a mere figure of speech, as she had neither money nor inclinations to "run") so I removed this meek and lowly appendix. Since that time this woman has never had a sign of a gastric hemorrhage. The moral of which is that great guile may sometimes wear all the marks of extreme innocence.

Anent Dr. Sparkman's observation (in which, by the way, Moynihan heartily concurs) as to the trouble one at times encounters in attempting an appendectomy, a case I operated upon a couple of nights ago, I think nicely illustrate this fact. This case, with a blood count of 15000 and a 80 per cent polymorphonuclear, showed marked tenderness in both lower quadrants, with rigidity more strongly evident on the left side. Patient had been running a temperature for five days when I was called into consultation. Advising immediate operation I had the patient removed to the hospital that night. Suspecting appendicitis, but fearing anything, I entered through a median incision. On opening the peritoneum, I encountered an appreciable amount of very dark fluid blood, but a fairly prolonged search failing to reveal its source, I went after the appendix. This was found, after considerable trouble, and dis-

sected out from a mass of adhesions. Returning to the left side to find a possible source of the hemorrhage which was continuing, though not at all alarming in extent, I found a boggy bleeding mass in the neighborhood of the left Fallopian tube, and at once determined that I had a ruptured tubal pregnancy to deal with. Putting my patient in the Trendelenburg I removed the torn tube, a considerable quantity of dark clotted blood, and a haematoma, which was lying loose in the abdomen. This tumor was about the size of a walnut with the outer hull on and on section presented the appearance of an organized clot, the foetus and membranes being indistinguishable at this hasty examination. As there were many small organized clots rather firmly attached to the intestines in the vicinity of the ruptured tube and rather free oozing kept up, I was forced to pack gauze down to the bottom of the wound—a procedure which I do not remember having resorted to in many years. At present the patient is doing quite nicely. To return to the appendix: At the time of its removal, I thought that I was dealing with an organ gangrenous at the end, as there was a decided bulbous enlargement at the extremity of a yellowish white hue, but afterwards, on section, this proved to be a perfectly solid tumor of fibrous consistency, completely obliterating the lumen of the appendix. This mass was about the size of the end of the index finger—a very unsatisfactory way of measuring, considering the varying sizes of index fingers—and solid throughout.

Now this woman had appendicitis, of that there can be no doubt, but had I gone in through the usual incision and simply removed the appendix, an undertaker undoubtedly would have removed the woman.

F. Julian Carroll.

Williston, S. C., December 6, 1924.
 Editor South Carolina Medical Association
 Journal,
 Seneca, S. C.

Please have notice put in State Medical
 Journal:—That Dr. Ryan A. Gyles of
 Blackville, S. C., has been reinstated and is

in good standing in the Barnwell County
 Association.

All members of said Association gave
 Dr. Gyles a hearty welcome back.

Yours truly,

A. S. Blanchard,
 President Barnwell County
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NEWS ITEMS

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similation of other basic foods of the vegetable, fruit, meat and fish families.

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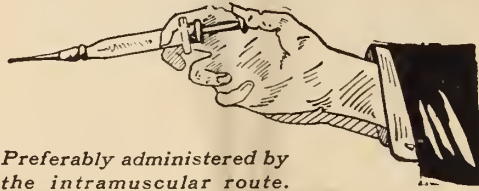
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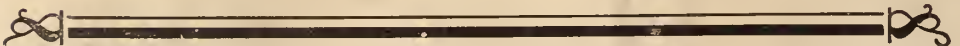


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(Stokes and Behn, Jour. A.M.A., July 26, 1924, p. 245.)



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The Journal

OF THE

South Carolina Medical Association

VOL. XXI.

GREENVILLE, S. C., FEBRUARY, 1925

NO. 2

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OF THE

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Published Every Month Under the Direction of the Board of Councillors.

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EDGAR A. HINES, M. D., Editor-in-Chief, Seneca, S. C.

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INTERNAL MEDICINE

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OBSTETRICS AND GYNECOLOGY

R. E. SEIBELS, M. D., Columbia, S. C.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

ROENTGENOLOGY

T. A. PITTS, M. D., Columbia, S. C.

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H. H. PLOWDEN, M. D., Department Pathology and Bacteriology, Medical College of State of S. C., Charleston, S. C.

SURGERY

S. O. BLACK, M. D., Spartanburg, S. C.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., Charleston, S. C.

DERMATOLOGY

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PUBLIC HEALTH

LEON BANOV, M. D., Health Officer Charleston County, Charleston, S. C.

ANAESTHESIA

W. B. WARD, M. D., Rock Hill, S. C.

NERVOUS AND MENTAL DISEASES

B. O. WHITTEN, M. D., Supt. Training School for the Feeble-minded, Clinton, S. C.

EDITORIAL

SPARTANBURG SOCIETY HAS GREAT MEETING

On February 13th at the magnificent Spartanburg General Hospital the members of the County Medical Society and their wives enjoyed one of the most delightful medical society banquets ever held in the up-country. There were several distinguished guests on the program of speakers, one of whom was Dr. J. W. Jervey of Greenville an Ex-President of the State Medical Association who spoke on, "The Work of The County Medical Society and Its Value to the Individual Members." Professor Gaines of Furman University delivered an admirable address on "The Contributions to Literature by Physicians." The Secretary of the State Medical Association was pres-

ent and outlined the plans rapidly maturing for the State Medical Association meeting at Spartanburg, April 21st, 22nd, 23rd. The Secretary by invitation organized the Woman's Auxiliary of the Spartanburg County Medical Society. Mrs. L. J. Blake was elected President of this organization; Mrs. W. A. Wallace, Vice-President and Mrs. Baxter Haynes, Secretary-Treasurer. Spartanburg County has eighty physicians and it is expected from the enthusiasm exhibited at this meeting that Spartanburg will report one hundred per cent by the time the State Association meets. County Societies throughout the State will watch with keen interest the campaign for increase of membership now in full swing under the guidance of President W. A. Wallace assisted by the officers of the South Carolina Medical Association.

PROGRAM FOR SPARTANBURG MEETING RAPIDLY FILLING UP

Titles for volunteer papers have been sent in to the program committee in increasing numbers recently and those who wish to appear should not delay any longer as the allotted number will shortly reach the limit.

HOTEL ACCOMMODATIONS AT SPARTANBURG

The Cleveland Hotel has been selected as the headquarters for the State Medical Association. Most of our members are familiar with this well known hostelry having attended medical meetings there in the past. Other hotels, first class and recommended by the Committee on Arrangements are as follows: Franklin, Clinchfield, and Gresham. There need be no anxiety therefore on the part of anyone about the ability of Spartanburg to take care of the attendance. Reservations may be made at any of these hotels at once.

THE WOMAN'S AUXILIARY TO THE STATE ASSOCIATION

Considerable progress has been made in various counties of the State in organizing Woman's Auxiliaries to the County Societies and reports from them indicate that the

assistance rendered by this adjunct to the work of the county society bears out the experience of many other states. Nearly all of the States are now organized. We would urge the county medical societies to at once follow the lead of the Spartanburg Society and take the initiative in providing every facility for the organization of the Woman's Auxiliary. In some states the President of the County Medical Society we notice appoints a temporary chairman and calls a joint meeting inviting the state officers of both the Medical Association and the Woman's Auxiliary and the organization is completed in a very short time. It is expected owing to the attractiveness of Spartanburg that there will be a large attendance of the doctor's wives and daughters. This will give an added opportunity as was the case at Orangeburg last year for the State Auxiliary to increase its membership and enlarge its work. The officers of the State Auxiliary are Mrs. Vance Brabham of Orangeburg, President and Mrs. W. R. Wallace of Chester, Secretary.

COMMITTEE ON ARRANGEMENTS

The Committee on Arrangements appointed by the County Medical Society for the Spartanburg meeting is as follows: Dr. J. E. Edwards, Chairman; Dr. F. S. Westmoreland and Dr. H. E. Heinitsh, Jr. This committee will be at the service of the members of the Association at any time.

ORIGINAL ARTICLES

A CONSIDERATION OF THE UNDER-ACTIVE THYROID

By *Wm. H. Higgins, M. D., Richmond, Virginia.*

There has always been a peculiar fascination about the thyroid gland which has attracted more attention than probably the entire remaining endocrine system. As a result we possess more detailed knowledge of the chemistry, physiology and clinical manifestations of this organ than any of the other ductless glands.

It is a remarkable fact, however, that practically all contributions of value on this subject have been made within comparatively recent years. During this period, the hyperactive gland has been the object of the major studies, and only within the last decade or two has the underactive state received its share of investigation. In 1874, Sir William Gull published his classical monograph, "On a Cretinoid State Supervening in the Adult Life in Women." It was not until the advent of basal metabolism studies that further progress was made on this phase of thyroid activity.

It is the purpose of this paper to review some of the more important impressions concerning the physiology of the underactive thyroid, and to report a series of cases presenting a clinical syndrome dependent upon an underlying thyroid insufficiency.

Although the chief function of the gland is to maintain a sustained rate of metabolic energy, it is also intimately connected with growth and differentiation in the young and is responsible for certain physical character-

istics in the adult. This functional activity, however, is not a constant factor as it is subject to wide variations in metabolism during the life of the animal, particularly the female. For example Seidel and Finger have shown a seasonal variation by noting an increased incidence of thyroid enlargement during the winter and a corresponding decrease in the summer months. It is well known that there is a notable increase in thyroid activity at puberty, during pregnancy and lactation and at the time of the menopause. Others have pointed out an acceleration of function following protracted febrile reactions, such as tuberculosis and typhoid fever and also after prolonged use of certain diets, especially those with a high fat and protein content. In these various conditions of thyroid hypertrophy, a definite associated iodine deficit in the tissues can be shown.

Since Kendall's studies in 1914, we know that these changes are dependent upon the amount of thyroxin, the active principle of the thyroid secretion, circulating in the blood. This substance is found normally in man on an average of 14 mg, and the daily consumption is approximately .5 to 1 mg. Its molecule contains 60% iodine and its potential energy is intimately related to the availability of this inorganic element.

Without definite knowledge of the exact mechanism, we can assume that stimulation of the thyroid is brought into play by partial exhaustion of the thyroxin in the tissues. Among the factors interfering with the production of this agent is a shortage of iodine. In other words it appears that iodine is the activating element necessary to the normal output of thyroxin and a deficit in the latter tends towards a glandular hypertrophy.

Numerous observers have demonstrated that increased thyroid activity is associated

with a decrease in the iodine store in the gland and if the iodine falls below 0.1 percent., thyroid enlargement begins. These enlargements are familiar to all of us as ordinary goitre.

Marine has shown experimentally that there are definite anatomic cycles in the development of a goitre which are dependent upon this iodine store. It was found that when the iodine content was low hypertrophic and hyperplastic changes in the gland followed. As soon as the percentage of iodine rose above 0.1 percent., active hyperplasia ceased and the gland passed into a colloid or resting stage, or under went atrophic resolution.

The assumption that iodine is the controlling factor in the development of goitre was further strengthened by Halstead who was able to reproduce at will goitrous pups from dogs whose thyroids had been removed, and also by other observers who demonstrated the efficiency of iodine therapy in the prevention of this glandular stimulation in the subsequent litters.

With this rather convincing evidence that goitre is a deficiency disease dependent upon the lack of supply or of absorption of iodine extensive studies have been made on the ratio of the disease to the iodine supply in different localities. The remarkable results obtained by Marine in the so-called goitre districts are classics in Public Health Work. Fortunately it has not assumed a serious problem for us but it does occur with sufficient frequency in every community to justify a reference to our knowledge of its prevention. Virginia is credited with only slightly over three adult cases per thousand, but a recent study of the children in the Roanoke schools showed one in every nine. In other sections of the state an even more serious condition exists. A few years ago Clarke made a study of over six thousand children in certain Virginia mountain counties and found approximately twelve percent., showing enlarged thyroids. South Carolina is reported by the Surgeon General's Office as having less

than one adult case per thousand, yet there are undoubtedly localities in the state where the incidence is many times as frequent.

It is commonly stated that goitre is endemic only in mountainous districts and not near the sea. This observation is largely true and is substantiated by the corresponding deficit in available iodine, yet it fails to explain the presence of normal thyroids in those districts as well as the occurrence of goitres in the lowlands where iodine is abundant. There must be some other contributory factor, not yet discovered. McCarrison has been the most enthusiastic advocate of the theory that goitre is infectious. In 1917, he was able to reproduce congenital goitre in goats apparently through infecting the mothers with goitrous material. Although the infectious theory has been largely discounted it may be found that there exists in some individuals a lack of absorptive power from the alimentary canal of iodine as a result of some bacterial interference.

The prevention of simple goitre means the elimination control of those forms of physical and mental degeneration such as cretenism, mutism and idiocy which are dependent upon thyroid insufficiency. Although colloid goitre generally disappears by the 25th year, there is a tendency for a thyroid once overloaded with colloid to retain more than its normal amount throughout life. It is stated that the majority of thyroid adenomas have their inception in simple goitres and that probably ninety percent., of the malignant tumors of the thyroid arise from these growths.

This phase of the underactive thyroid is pregnant with grave possibilities and should command our most serious consideration.

The second type of thyroid insufficiency is myxedema. From the standpoint of physiology and pathology simple goitre and myxedema are different stages of the same process, but from the standpoint of clinical medicine they present radically different pictures. In the well developed forms the manifestations are clear cut, easily recog-

nized and of little diagnostic interest. There is a closely allied group, however, which occurs with greater frequency, is less readily differentiated and for want of a better term may be called incipient or larval myxedema. It of course is dependent upon an underlying thyroid deficiency and is usually associated with some other pathologic process in the body. Curiously enough, the literature contains comparatively little on this type of hypothyroidism. The student is given accurate descriptions of the well developed myxedema but without reference to the more frequent and milder grades which he is destined to see in his general practice.

The study of this group is based on a series of twelve patients who were admitted to St. Elizabeth's Hospital during the past year and on whom a diagnosis of larval myxedema was made. The diagnosis was based on the history, physical findings and basal metabolism studies, and further substantiated by the beneficial effect following the administration of thyroid extract or thyroxin. In the majority of instances symptoms referable to other pathologic conditions constituted their chief complaint and it was only by routine examinations that the glandular insufficiency was recognized as a contributory factor. On account of the atypical types and the mildness of the symptoms this process may be readily overlooked or ascribed to some other associated condition.

The course of the disease with the development of the clinical picture and the more detailed description of the major manifestations are best illustrated by the following history. Mrs. R. L. B. case no. 7888, age 45, was admitted July 1923, complaining of weakness and womb trouble. Past History:

In general her previous history was excellent as she had never been seriously ill aside from the usual diseases of childhood. She has been married nine years and has one healthy child age seven. There have

been no miscarriages and her periods have been regular since her pregnancy.

Her social condition was considerably above the average and her home surroundings have been conducive of good health. Present Illness:

For approximately one year, patient has been suffering with weakness, general nervousness and stiffness of fingers. She has at times a feeling of confusion, especially in writing and a sense of fear without cause. Emotionalism and irritability have increased and an inability to concentrate has been a prominent factor. There has been a stiffness of the fingers as if the skin were drawn too tightly. No actual pitting has been noticed. She thinks her abdomen is enlarging and she has been told that her uterus is displaced. She entered the hospital for surgical treatment of this condition. Physical Examination:

Showed a well developed and nourished woman. Skin is sallow but smooth with the exception of several areas of brownish pigmentation over the dorsal surface of the hands. Hair is drier than normal, rather thin and there is a striking loss of hair over the outer half of each eye brow. The eye lids were a trifle full, especially the lower lids. The fingers were slightly stiff although apparently not due to any joint involvement. There was a peculiar elasticity to the skin which gave the impression of being edematous without actual pitting.

The pelvic examination showed a marked retroversion of the uterus, the fundus being easily palpable in the cul-de-sac. Temperature ranged from 98 to 98.4 and pulse averaged between 72 and 90.

Blood: Hemoglobin 75%, white cells 7,200.

Differential Count: Polymorphonuclears, 68 percent., lymphocytes, 32. Wassermann negative.

Urinalysis: Sp. Gr. 1010, no albumin, sugar, bile or acetone. Sediment contained few leucocytes and many epithelial cells. Basal metabolism on admission was—18, and (after treatment)—2. Her symptoms

cleared up under thyroid therapy and without operation.

The principal facts concerning the 12 patients with larval myxedema are recorded in Table 1. It is seen that all are females and that some form of pelvic complication was present in 8 of the cases. Much has been written on the inter-relation of the ductless glands and there is strong clinical evidence of an association between the female generative organs and the thyroid. Experimentally, it has been shown that in thyroidectomized young animals, the sexual glands fail to develop properly.

Contrary to the usual apathy noted in true myxedemas, some form of nervous instability was a prominent symptom in ten cases. Emotionalism, insomnia, and irritability were among the more common complaints. In one instance, this phase was such an out spoken factor that hyperthyroidism was suspected. In case 6, complicated by pregnancy, hysterical out breaks were frequent until thyroid therapy was instituted. Eight complained of headaches without apparent cause and three had marked weakness. In only two was obesity a factor, and only two showed supraclavicular pads of fat. In no instance was there a persistent subnormal temperature and none

had a pulse rate below 70. The three most frequent physical findings were dry skin, dry thin hair, and a localized edema. It was largely upon these objective symptoms that the disease was suspected, and verified by a low basal reading. These findings, however, were never extreme and have little resemblance to the well developed myxedema. Although edema was present in seven cases, only one of them showed a solid elastic swelling common in true myxedema.

The dissimilarity of this group of cases to the true myxedemas is shown in Table 2. Whereas mental inertia, voice changes, rough scaly skin, solid edema, anemia, bradycardia, subnormal temperature and frequent manifestations of myxedema, the clinical picture in the larval type offers a striking contrast in degree.

The symptoms of the latter form resemble so frequently the history of a neurotic individual that there is a danger of a truly remediable disease being relegated to the junk heap of neurasthenics. Occurring usually in women, and often complicating pelvic disorders, the diagnosis is made the more difficult. Our most valuable diagnostic point is a low basal metabolism and if such studies are available the differentiation can be made.

CHART 1.

Case	Sex	Age	Diagnosis	General Symptoms.	Nervous Instab.	Constipation	Hair	Skin	Edema	Pulse	Temp.	Headache	Weight	Basal Metab.
1.	F.	35	Fibroid	Abd. pain, Menorrhagia	Yes	No	Thin	Dry	Hands Feet	80+	98+	Yes	144	-12
2.	F.	46	Endocervicitis	Abd. pain, Numbness, Insomnia	Yes	Yes	Thin Dry	Dry Scaly	Ankles, Eyelids	76+	98+	Yes	180	-25
3.	F.	47		Choking, Dizziness	No	No	Neg.	Neg.	Eyelids	70+	98+	Yes	110	-13
4.	F.	34	Fibroid	Nervous, Weakness	Yes	Yes	Thin Dry	Dry	Eyelids	80+	98+	Yes	180	-21
5.	F.	27	Metrorrhagia	Menstrual, Nervous	Yes	Yes	Neg.	Dry	No	76+	98+	Yes	115	-17
6.	F.	45	Retroversion	Weakness, Abdominal Enlargement	Yes	Yes	Thin Dry	Dry	Hands	80	98+	Yes	152	-18
7.	F.	49		Abd. pain, Weakness	Yes	Yes	Thin Dry	Dry	No	76+	98+	No	152	-20
8.	F.	16	Epilepsy	Convulsions	Yes	Yes	Dry	Neg.	Eyelids	80+	98+	No	130	-22
9.	F.	26		Headache Nervous	Yes	No	Thin Dry	Neg.	Eyelids	80+	98+	Yes	125	-19
10.	F.	26	Ovarian Insuf.	Sterility Insomnia	Yes	No	Thin Dry	Dry	No	70+	98+	No	130	-11
11.	F.	16		Choking Obesity	No	Yes	Thin Dry	Neg.	No	70+	98+	No	160	-23
12.	F.	44	Meno-pause	Itching Abd. pain	Yes	No	Thin Dry	Dry Scaly	No	76+	98+	No	110	-12

CHART II.

Case	Oedema	Mental changes	Voice changes	Coldness	Dry Hair	Dry Skin	Slow Pulse	Anemia	Weak- ness	Low B. M.
1.	Yes	No	No	No	Yes	Yes	No	82	No	-12
2.	Yes	No	No	No	Yes	Yes	No	85	No	-25
3.	Yes	No	No	No	No	No	No	78	No	-13
4.	Yes	Yes	Yes	No	Yes	Yes	No	80	Yes	-21
5.	No	No	No	No	Yes	Yes	No	85	No	-17
6.	Yes	No	No	No	Yes	Yes	No	75	Yes	-18
7.	No	No	No	No	Yes	Yes	No	84	Yes	-20
8.	Yes	No	No	No	Yes	No	No	83	No	-22
9.	Yes	No	No	No	No	No	No	80	No	-19
10.	No	No	No	No	No	Yes	No	70	No	-11
11.	No	No	No	No	Yes	Yes	No	80	No	-23
12.	No	No	No	No	No	Yes	No	80	No	-12

BENIGN TUMORS OF THE SMALL INTESTINE CAUSING INTUSSUSCEPTION

By Hugh S. Black, M. D., Spartanburg, S. C.

Benign tumors of the small intestine usually manifest their presence by causing intestinal derangement through irritation or obstruction or by causing a severe secondary anemia as a result of hemorrhage. In the small intestine the first evidence of a benign tumor is usually obstruction, hemorrhage being as a rule the result of the obstruction.

Fenger wrote that benign tumors of the small intestine were not common but King has since reported (1917) from the literature 119 histologically studied cases and to this number Rohdenburg, Willis, and others have found and reported additional cases. Ferguson found 8 benign tumors of the small intestine in 3,327 autopsies at the Massachusetts General Hospital and Mallory reported 11 benign tumors in 4,165 autopsies at the Boston City Hospital.

Of the benign tumors occurring in the intestines and collected from the literature King has classified them into adenoma, angioma, cyst, fibroma, lipoma, lymphangectasis, multiple cavernous hemangioma, myoma, and teratoblastoma. Sutton states that dermoids are to be found only in the terminal rectum. Herteaux has suggested that benign tumors be put in one of three groups; (group 1), small tumors causing no symptoms but found while operating for other conditions. (group 2) larger tumors growing towards the serosa causing little or no symptoms except pressure. (group 3) tumors causing intestinal disturbance through irritation, obstruction, or hemorrhage.

As benign tumors of the small intestine almost always attract attention by causing an invagination, I will give an abstract of

a case of chronic intussusception due to an adenoma of the ileum which was successfully operated at the Mayo Clinic by Dr. W. E. Sistrunk during the time I was his first surgical assistant. Dr. Sistrunk has kindly permitted me to refer to this case.

A male about 35 came to the Clinic in 1921 with an 8 or 10 year history of irregular attacks of pains and cramps in the pit of the stomach coming on any time of the day and night, lasting from a few days to a few weeks at a time. During the interval he would be free from symptoms, but during the attacks he would belch and occasionally vomit with relief. During an attack in 1918 or 1919 an appendectomy was done elsewhere and 15 days later while still in the hospital he was seized with a similar spell. It became necessary for him to take hypodermics of morphia for relief.

The patient stated that these attacks had been recurring at irregular intervals and of late he had been able to feel a mass in the abdomen during them. The mass seemed to be movable and apparently disappeared on massage with relief of symptoms.

On admission, his physical examination was negative except for a freely movable sausage shape tumor below and to the right of the umbilicus which seemed to disappear on massage. The laboratory tests and X-Ray examinations were of negative value.

Operation 1921; Surgeon, W. E. Sistrunk; Assistant Surgeon, Hugh S. Black; operative findings, Intussusception of the lower ileum with marked thickening and scarring of the mesentery, caused by an adenoma. On account of the marked hypertrophy and edema of the bowel several feet of the small intestine and mesentery were resected and an end to end anastomosis made. The pathological report was an adenoma. Convalescence unevenful.

Adenoma of the small intestine from the reports of Williams and Mallory is not common. The former reports one in 3,327 autopsies and the latter 4 in 4,165 autopsies. Willis in 1920 was able to collect from the literature, including his own, 19

cases of adenoma of the small intestine associated with intussusception.

According to structure, adenomata may be classed as tubular or acinous but according to Zeigler these two forms cannot be sharply differentiated. They vary in size, shape, and form but usually are nodular with sharply defined borders situated within gland, mucous membrane or skin. In the intestine they have a tendency to become pedunculated. As a result of the propulsive movements of the bowel they may be sessile and according to Smoler may become cystic as a result of metamorphoses. Bland Sutton states that all simple tumors arising in the walls of the bowel tend to become polypoid but might occur in the form of papillary proliferations.

Whether adenomata are caused, as Birch and Hirschfeld think, as a result of inflammation, or as Kernigs thinks as a result of a congenital affair, or as Conheim thinks as a result of embryonic rest, or as Smoler thinks as a result of traumatic influence, one cannot say but it must be certain that the etiology of adenoma is the same as that of other tumors.

Acute invaginations of the intestine according to Buezzello are more apt to occur in children with a narrow lumen of the bowel while chronic invaginations are more common in adults. Intussusceptions in children are usually due to peculiarities in development and function of the intestine which generally is not of a pathological nature while in the adult as a rule we find some gross lesion to be the cause, of which tumors are the more frequent, and more especially the benign growths. The reason for this is that malignant tumors infiltrate the intestinal wall and invade the surrounding tissue which prevents an invagination. Nothnagel states that for intussusception to occur it is necessary that one portion of the bowel involved in the invagination must possess at least a certain degree of mobility. This he states is always present in the small bowel but in the large bowel it is necessary for its embryological motility to have per-

sisted abnormally or for it to have acquired a loose meso-colon secondarily by traction.

Several theories have been advanced to explain the cause of these invaginations. There are some who hold to the fact that the mere weight and pull of the tumor alone will cause invagination. Others hold that the presence of a tumor often excites violent peristalsis which leads to a beginning invagination and this condition being increased by peristalsis, results in a migration downward of the tumor and a pulling after it of the intestinal wall leading to an intussusception. Willis states that the absence of the tumor from the apex of the invagination cannot be held as an objection against the mechanical theory for the tumor may be undergoing self reduction.

Smoler, Treves and others are in favor of the mechanical theory while Nothnagel doubts same because of such small growths in some of the cases.

Hartmann in reporting his two cases thinks the intussusception was not due to a migration of the polyp pushed by intestinal contractions and pulling after itself the intestinal wall as the fixation of the segment of the intestine at the site of the lumen in his cases opposed itself to any movement of the walls in that region. Such invagination seems to correspond only to perverted action of the muscle which may be compared, he believes, to those of which Peyer and Brunnen found in experimental work when irritating the intestines of animals.

Leichtenstein and Peyer suggest that the invagination may be a result of paralysis of the bowel. It seems that this is the best method to explain those cases of invagination of the small intestine which follow trauma to the abdominal walls of which Kennedy has recently reported such a case.

Nothnagel and Norris think the invagination is a result of a spastic contraction of a portion of the bowel and that this contracted part forms a fixed part, the intestines immediately below being drawn up over it.

Cases of acute intussusception are comparatively easy to recognize as the symptoms are more or less typical but it is the chronic type with vague and irregular symptoms that leads to error in diagnosing. There may be only an uneasiness or uncomfortable sensation in the abdomen due to the change in the position of the tumor or there may be a distinct generalized pain either colicky or gas like which seldom localizes at the site of the tumor. The colicky pains might be due either to the dragging on the bowels or the peristaltic efforts to expel the tumor or due to an obstruction of the passage or due to a beginning invagination. Complete obstruction due to benign tumors of the small intestine are extremely uncommon because the tumors are as a rule small and the contents of the intestine liquid. Vomiting is an early and very common symptom in the acute type but cannot be diagnostic for the same may be present in the chronic type.

When blood is present in the stool it is as a rule due to either a torsion of the pedicle or to an interference with nutrition of the tumor or to a partial separation of the pedicle. Mucus is rare in the acute type but common in the chronic.

The treatment for benign tumors of the small intestine causing intussusception is surgical. There are two methods depending on the case. One in which the intussusception should be reduced, an enterotomy performed excising the tumor either suturing or ligating its pedicle. The other consists in doing in those cases where the intussusception cannot be reduced or where there is a marked chronic inflammatory condition of the bowel or mesentery after reduction, a resection of the bowel.

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DISCUSSION:

DR. A. E. BAKER. (Charleston):

Doctor Black has given us a most interesting paper. It is really a contribution to the surgery of this rare disease—and yet not so rare as one might think because of the number of cases he has reported to us and the record in the literature. I am sorry that I cannot add anything to what he has said. All I can do is to emphasize a few of the working points.

He refers to the symptoms—that there are no symptoms to be observed until the benign tumor has reached that growth where it produces pressure and intestinal disturbance.

Another important point he stressed was the difference in these benign growths and malignant growths do not invaginate. To emphasize what he said your mind will readily conceive that in malignant growths we have infiltration extending into the tissue, whereas in a benign tumor there is free mobility in the effort of Nature in the form of peristalsis to get rid of this growth, and eventually intussusception occurs.

Then again he has given us the differential symptoms between acute intussusception and those chronic processes of invagination.

The paper is very valuable. It is the first

time I have thought of the condition but as he has cited so many cases on record it is very essential that our attention should be called to it. I thank him very much for this paper.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

Cunningham, John H.: URINARY RETENTION—ITS SIGNIFICANCE AND TREATMENT. The Boston Medical and Surgical Journal, Vol. 192, January 1, 1925.

The writer discusses urinary stasis only in its broadest sense. He emphasizes the importance of this condition and feels that it is not yet appreciated as much as it should be in general surgery and medicine. He rightly states that an examination of a specimen of urine is not sufficient for determining renal impairment. Tests of excretion and of retention should be employed. He states: "Renal function tests and blood chemistry are now at the disposal of all, quite as much as urinalysis and blood pressure determinations, and should be a part of the pre-operative investigation of every patient, where there is the slightest reason to suspect diminished renal efficiency. If this principle is adhered to there will be fewer unexpected and perhaps unexplained fatalities following surgical procedures."

He not only refers to stasis that may be produced by any form of obstruction at any point in the urinary tract but also from any

condition that may bring about an impairment of renal activity. It is frequently caused by prostatic obstruction to a very marked degree; other causes may be strictures of the ureter or urethra, calculi at any obstructing point, kinks, aberrant blood vessels, median bar, contracture of the vesical neck, etc.

The writer discusses the influence of urinary stasis upon the circulation. "It is now appreciated that obstruction anywhere in the urinary tract may be considered as a cause per se of a high blood pressure and increased cardiac burden." The myocardium is chiefly affected; however, there are frequently gastro-intestinal and nervous symptoms.

The fundamental principle of the treatment of urinary retention from any cause is to direct it to the relief of the obstruction. Besides the removal of the underlying cause of the stasis other measures should be used. The principal ones are first the supplying of the body with a large amount of fluid daily and cardiac stimulation with digitalis. From 100 to 200 ounces of water may be given daily but should never be given to the extent of producing an oedema. Catharsis and sometimes urinary antiseptics are helpful.

PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

Very few practitioners of medicine regardless of whether they do general work or limit their endeavors to a specialty fail to be greatly interested in some phase of pneumonia. The surgeon is constantly on guard lest he operate for an acute abdomen when the pathology is in the lung even though the pain be referred below the diaphragm. Many a sick child with fever, grunt and rapid respiration has been misdiagnosed pneumonia instead of otitis media. The treatment of pneumonia notwithstanding the careful and scientific work that has been done by clinicians and pathologists, is still very far from satisfactory. Indeed, although we do know more of the etiology of pneumonia, yet in the vast majority of cases the treatment remains just where it was ten or twenty years ago. And the impression prevails that our mortality has not been lessened. All studies of this very acute infection are worthy of attention as we are constantly hoping for something that may be of benefit or at least some new idea that will give us greater confidence in our diagnostic ability and increase our therapeutic powers. Dr. R. D. Moffett in the Archives of Pediatrics (Vol. xii, no. 11 Nov., 1924) presents a study of pneumonia based on 218 cases of the lobar type and 199 of the bronchial. The ages ranged from under 1 year up to 14 years. His mortality was 12.9%. He stresses the value of the X-Ray in diagnosis. He is impressed with the value of early stimulation by digitalis, and advocates using whiskey in certain cases. He also uses camphor during the whole period of high temperature. He has his patients given sponge baths every three hours while the temperature is over 103 1-2. While his therapeutics may not be in complete accord with our individual concep-

tions, yet the report is well worth reading. In the same number of the Archives of Ped. Dr. E. H. Smith reports concisely and clearly ten cases of intussusception and reviews the important features in the clinical course of this important condition. There are two important points brought out. First, that intussusception is not rare but that the average doctor sees but few cases in his lifetime, and second, that an early diagnosis is essential for recovery. Fortunately for us and still more so for the infant most cases are typical in onset and in findings. In his series every baby exhibited pain, vomiting, shock, tumor and bloody stools, and the onset sudden.

While most of us feel that the diagnosis of intussusception can be made without the use of the X-Ray, yet Dr. T. Woods Clarke, states that today the condition should be recognized during the early hours in all cases by the combined use of the barium enema and a fluoroscopic examination. His opinion is that the procedure is simple, safe and extremely valuable. In his paper entitled The Value of Gastrointestinal X-Rays in the Diseases of Children Arch. Ped. vol. XLI, no. 12, Dec. 1924) he goes into the application of the X-Ray in several conditions especially pyloric stenosis, chronic intestinal indigestion enteroptosis and chronic appendicitis and concludes by appealing for "the same roentgenoscopic attention to the child's abdomen" that is routinely given to that of the adult. The paper is well worth reading and convinces one that modern medicine in the child or adult requires the co-operation of men trained along definite lines.

To those who feel that infant feeding is a finished subject and that the simple mixtures of milk, sugar and water, at pres-

ent in use, are sufficient in all cases; it will come as quite a rude awakening to read what Dr. T. L. Birnberg has to say concerning the use of "Concentrated Feeding For Infants and Children," in the same numbers of the Archives of Pediatrics. He reports some illustrative cases and concludes after a full discussion of the methods in use (chiefly in Germany) that "Cencentrated

feeding has not been used enough in this country and that certain conditions react to its employment more quickly and successfully than by any other method, and further that the supposed dangers are largely theoretical." The paper opens up a wide field and one that is certainly worthy of study by all interested in the artificial feeding of children.

ROENTGENOLOGY

T. A. Pitts, M. D. Columbia, S. C.

In a paper given before the Second District Medical Society, January 14th, 1925 at Batesburg, South Carolina by Dr. W. J. Bristowe and the writer titled Thymus Disease in Childhood, brought out that thymus conditions are much more common than is ordinarily thought. Cases were reported with the symptomatology varying from simple "breath holding spells" to that of prolonged apnea resulting in death also those simulating foreign bodies in the oesophagus and trachea. The ages varied from 5 days to 30 months in the cases presented but showed that it may occur any time up to puberty. The 5 day old case came under the head of those with prolonged apnea that resulted in death the diagnosis being confirmed after a complete autopsy.

The diagnosis is made primarily by X-Ray which is usually very characteristic, there may be physical signs as dullness or even a palpable mass above the sternum.

The treatment is X-Ray. The results were shown by lantern slides which in some cases were very striking and apparently the patients were cured. Clinical records substantiated this.

The paper brought out that a routine radiographic chest examination is made at some of the Boston clinics of all cases booked for tonsil and adenoid operations and that 7.5% show thymic shadows. These are given ray before operation. The writers advocate this procedure.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

THE EVOLUTION OF THORACIC SURGERY AS A SPECIALTY

In the Archives of Surgery—Part II January, 1925, is a resume of thoracic surgery by Hedblom.

He treats of the problems of the chest as intricate, delicate, inaccessible and points out that as the result of the anatomic relationship, the physiological function of the intra-thoracic viscera, the diagnostic difficulties, and the complexities of pathology, it is proper and fitting that those advancing this phase of surgery should be specialists.

Thoracic surgery, as a specialty has been late in developing because of the inaccessibility of its organs, lack of knowledge concerning their pathology in vitro, and because of much confusion concerning artificial or surgical pneumothorax.

For a long time there were many medical men who believed that a special appliance for maintaining intra-thoracic pressure was indispensable. This is now a fallacy, and there are some who go so far as to say that the thorax can be opened and explored in much the same manner as can the abdomen and with almost as much immunity from serious consequences thereto.

In a consideration of the treatment of suppurative and non-suppurative diseases of the organs in the thorax, prophylaxis must ever be borne in mind.

Inhalation pneumonia from inspiration during general anesthesia must be guarded against. Proper selection of patients is of the first magnitude if a low operative mortality is to be kept in-tact, and proper preliminary operative treatment is of indispensable value.

Within the past two decades, regional an-

esthesia, para-vertebral anaesthesia, pneumothorax, thoracoplasty and phrenicotomy are all common practice for unilateral pulmonary tuberculosis. For suppurative lesions, endoscopy, fluoroscopy, and lobectomy, and extra pleural collapse are useful. For suppurative mediastinitis and pericarditis, incision and drainage of these spaces now often end with recovery, whereas formerly they were generally believed to be uniformly fatal.

Of even more recent date, Grahams cauterization lobectomy in one or more stages for bronchiectasis and allied conditions and cervical sympathetic gangliectomy for angina pectoris opens new fields for experimentation and study.

EMPHYEMA

Emphyema, he discusses under the acute and chronic forms. The acute is divided into tuberculous and non-tuberculous. All streptococcic varieties are treated by the closed technique of drainage and irrigation. The other acute infections are treated by either the open or closed operation.

Chronic emphyema has largely been brought under control by irrigation with chlorinated soda. This solution not only tends to sterilize the field itself, but also lessens the size of the cavity from 50% to 90%, at the same time the patient is improving in health, is gaining strength, taking on weight and when he finally goes to the operating table, his general physical condition has been greatly improved.

--PULMONARY SUPPURATION

This condition remains a problem. Different forms of suppuration have advocates of different procedures. Pneumo-thorax collapse seems rational for a centrally located abscess, while drainage of a peripherally situated one offers a shorter and more

prompt convalescence. In the chronic multiple bronchiectatic cavities, cauterly lobectomy is the operation of choice.

PULMONARY TUBERCULOSIS

Rest is the established treatment. It may be accomplished by pneumo-thorax, or in the presence of pleural adhesions, by extra pleural collapse.

MEDIASTINAL SUPPURATION

Pus formation in the mediastinum need no longer be particularly feared. It is amenable to drainage and irrigation.

NEW GROWTHS

New growths, if detected early may be extirpated per se or by means of lobectomy. When advanced, the outlook is dark, and it is doubtful if radium or the X-Ray has any decided beneficial effect.

Carcinoma of the thoracic esophagus is still a bug bear; and up to the present time, radical operation has not cured any of these tumors.

PERICARDIUM AND HEART

Aspiration of the pericardial sac for effusion is a relatively simple procedure. Pericardiostomy for suppuration has not been uniformly successful, possibly because of the difficulty in draining the posterior culdesac.

Allen has done some work with the cardioscope and approach to the valve leaflets through the auricles has been done. There have been reported many cases of stab wound of the heart cured by suture. However, the subject of cardiac surgery is still a problem. Its practicability has yet to be established.

In conclusion, the author states that thoracic disease and its treatment present complex and difficult problems and that no other branch of surgery necessitates the combined efforts of the internist, the surgeon, the endoscopist, the roentgenologist and the experimental worker.

SOCIETY REPORTS

LAURENS

The Laurens County Medical Society held a monthly meeting Monday, January 26th and after an interesting paper on "Focal Infections," read by Dr. J. L. Fennel and discussed by others, the annual election was held, the following being chosen as officers for the year: President, Dr. J. M. Bearden; Vice-Presidents, Dr. J. L. Donnan and Dr. W. D. Ferguson; Secretary-Treasurer, Dr. J. L. Fennel.

Dr. J. L. Young and Dr. R. E. Hughes were elected as delegates to the state Medical Association which meets in Spartanburg in April. Dr. W. T. Pace and Dr. J. L. Donnan were named as alternates. The meeting was well attended and much interest shown by the physician members. It is planned to hold regular monthly meetings throughout the year, the one for February

to be held at Laurens and the one in March at Clinton.

J. L. FENNEL, Secretary,
Waterloo, S. C.

CHARLESTON COUNTY PROCEEDINGS OF MEETING JANUARY 13, 1925

The first regular meeting of the Medical Society of South Carolina was held at Roper Hospital on January 13, 1925. Dr. C. P. Aimar presided. Thirty-two members were present. The meeting was largely taken up with business of the Society, no scientific program having been provided, as a large amount of business relative to the Society and the Roper Hospital was to be discussed.

The financial affairs of the Society are handled by a Board of Finance, of which

Dr. R. S. Cathcart is Chairman and Drs. E. F. Parker and G. McF. Mood are members. The Chairman of this Committee made an extensive report covering all of the bequests and endowments which are held in trust by the Medical Society for the Roper Hospital. A statement showed that the trust funds were being wisely cared for and the funds judiciously invested. Dr. Cathcart also read the Annual Report of the Treasurer, as prepared by the Society Auditor. This report showed that during the year the Treasurer had expended \$1,162.56 and that there is a balance of \$485.09 in the bank. The report also showed, however, that the outstanding indebtedness was little more than covered by the balance on hand. At a previous meeting of the Society the Finance Committee was directed to prepare a budget for the year 1925. This committee reported that they had had a budget prepared by the Secretary and one by the Treasurer, and that it was found that it would cost \$750 per year to carry on the affairs of the Society. They pointed out that the dues now being charged were insufficient to carry on the Society's activities and recommended that the dues be increased. To this end, an amendment was submitted, increasing the dues from \$10.00 per annum to \$15.00 per annum.

Under "Reports of Officers," the Secretary read his annual report for the year 1924. This report showed that at the beginning of 1924 there were 82 members; that the Society lost by transfer to other Societies 5 members; that 3 new members had been elected during the year; making a total enrollment of 80 members at the beginning of 1925. He pointed out that the average attendance at the meetings during the past year was 36. During the year three active members had been elected Honorary Fellows." These were Dr. Chas. P. Aimar, Dr. Harry P. Jackson, and Dr. Edward Rutledge. Members are eligible to become "Honorary Fellows" after 25 years of continuous membership.

The President announced the Appointment of the following committees for the ensuing year:

CHARLESTON COUNTY OFFICERS AND COMMITTEES 1925

President -----Dr. Chas. P. Aimar
Vice-President ----Dr. John F. Townsend
Secretary -----Dr. W. Atmar Smith
Treasurer -----Dr. Jos. H. Cannon
Librarian -----Dr. H. Plowden
Commissioners of Roper Hospital: Dr. G. McF. Mood, Chairman; Dr. Chas. W. Kollock, Dr. J. Sumter Rhame, Dr. Lester A. Wilson, Dr. W. Atmar Smith.

Board of Censors: Dr. T. Grange Simons, Chairman; Dr. O. B. Chamberlain, Dr. E. L. Jagar.

Board of Finance: Dr. R. S. Cathcart, Chairman; Dr. G. McF. Mood, Dr. Edward F. Parker.

Committee on Public Health and Legislation: Dr. J. Mercier Green, Chairman; Dr. Francis L. Parker, Dr. J. Walter Burn.

Program Committee: Dr. F. H. Dietrich, Chairman; Dr. Robt. L. McCrady, Dr. Josiah E. Smith, Dr. W. Atmar Smith, Ex-Officio.

Library Committee: Dr. I. Ripon Wilson, Chairman; Dr. G. F. McInnes, Dr. R. W. Preston, Dr. W. C. O'Driscoll.

Committee on Child Welfare: Dr. M. W. Beach, Chairman; Dr. Wythe M. Rhett, Dr. A. E. Baker, Jr.

Delegates to State Medical Association: Dr. T. Grange Simons, Chairman; Dr. Chas. W. Kollock, Dr. Francis L. Parker, Dr. F. McF. Mood, Dr. J. Sumter Rhame.

Alternates to State Medical Association: Dr. Olin B. Chamberlain, Dr. W. Atmar Smith, Dr. Wm. Henry Johnson, Dr. Eugene L. Jagar, Dr. Josiah E. Smith.

Committee on Tuberculosis: Dr. Leon Banov, Chairman; Dr. G. McF. Mood, Dr. O. B. Chamberlain, Dr. C. W. Kollock, Dr. W. A. Smith.

Dr. William P. Rhett who was elected a member on November 25, 1924, was presented and signed the constitution; thus becoming a full-fledged member.

W. Atmar Smith, M. D.,
Secretary.

CHARLESTON COUNTY
PROCEEDINGS OF MEETING JAN-
UARY 27, 1925.

The second Regular Monthly Meeting of the Medical Society of South Carolina was held January 27, 1925. Dr. John F. Townsend, Vice-President, presided in the absence of Dr. C. P. Aimar, who was indisposed. Forty-three members were present, among whom were Drs. E. Harry Barnwell of Rockville, S. C., and Dr. W. W. Wild of North Charleston.

The Secretary announced that Dr. Hawkins K. Jenkins had transferred his membership to the Marion County Medical Society. The Secretary read a letter from the Gorgas Memorial Committee, explaining the Gorgas Memorial and requesting that this Society elect a representative to serve on the State Governing Committee. Dr. Robert Wilson was unanimously elected to represent this Society. The amendment submitted at the preceding meeting in regard to increasing the annual dues to the Society was passed.

The Scientific Program was then taken up. A Medical Case Report was made by Dr. Edward Rutledge. Dr. Rutledge presented a case which he stated had aroused some differences of opinion on the Medical Staff. The case was that of a colored adult, 29 years of age. The outstanding symptoms was a cough of one year's duration. One month ago cough became very severe and was productive of a whitish-looking material. At the same time the patient had a pain across his abdomen, just below the costal border. About December 22, fever came on, which was followed by sweating. The cough was often accompanied by vomiting. Patient had lost about twenty pounds

before admission to the hospital. Temperature on admission to Hospital was 103. Within 24 hours after admission it dropped to normal and has risen only to 99 on one or two occasions since admission, on January 1, 1925. Clubbing of the fingers of both hands was the only sign of diagnostic value, except for the chest findings. Chest findings were as follows: Diminished expansion on the right side. Diminished fremitus and dullness on percussion from the angle of the scapula to the base and from about the fourth rib in the axilla. Breath sounds are diminished over these dull areas. Above these areas were numerous rales and bronchial type of breathing. Laboratory examination showed on two examinations a total WBC of 7,000, and the polynuclear around 70. The other elements were about normal. The Blood Wassermann was negative. The urine showed 2+ albumen. A sputum examination showed the character of the sputum as tenacious and seropurulent and of foul odor; a large amount of pus and many elastic fibers. No ray fungus. Many bacteria. No tubercular bacilli.

X-Ray report indicated free fluid in the right pleural cavity. Dr. Rutledge stated that two or three aspirations of the chest failed to show fluid. At the last puncture 2 cc of purulent material was obtained. Examination of this showed many bacteria and many broken-down white blood cells. No elastic fibre. Dr. Rutledge stated that his diagnosis in this case was empyema. Dr. Robt. Wilson pointed out the possibility of there being tubercular involvement, but rather leaned to the diagnosis of empyema and pulmonary abscess. Dr. Taft exhibited X-Ray plates of the chest and pointed out the fluid level. Dr. W. A. Smith believed that this was a clear case of abscess of the lung which had ruptured into a bronchus and which was draining in this way. He stated that he did not agree entirely with all of the physical findings of Dr. Rutledge. He pointed out that when the patient was sitting up the breath sounds were diminished

and there were no rales, but when the patient was placed upon his left side and made to cough that the breathing became distinctly amphoric in character and there were numerous bubbling and metallic rales. He believed, too, that there was a difference in percussion note obtained after the patient had been made to expectorate a quantity of sputum. He also pointed out that there was a large amount of elastic tissue in the sputum. Dr. D. L. Maguire discussed the case from a surgical standpoint and wanted to know why the patient had not been sent to the Surgical Department for operation. Dr. Buist also discussed it from a surgical angle. Dr. Smith stated, that postural drainage had been instituted and that this would be tried first. Dr. Rutledge closed the discussion, emphasizing his belief that this was a case of empyema.

Surgical Case Report was not made, as Dr. Henry Deas was not present.

The paper of the evening was read by Dr. R. B. Taft on splenomegaly. This latter paper appears in another part of the Journal.

W. Atmar Smith, M. D.,
Secretary.

SPARTANBURG COUNTY MEDICAL SOCIETY

It is our sad duty to report to this association the death of Dr. W. J. Keller, which occurred on the 2nd of October, 1924.

Dr. Keller was a native of Maryland. He graduated in Medicine in 1895 at Nashville, Tenn. After a few years of general practice he decided to specialize, and spent

quite a while in study both in America and abroad in preparing himself for practice on the Eye, Ear, Nose, and Throat. He came to our town in 1910 and ever since then has devoted himself to that specialty.

Dr. Keller was a cultured physician and a Christian gentleman. He was in love with his family, his friends, his associates, his profession, and with life. His work was for the good of all with whom he came in contact, and he was ever found willing to labor for the uplift of humanity in general and the welfare of our community in particular.

Therefore, this association recognizes his death as a very distinct loss. It orders the Secretary to have a page in our minute book suitably inscribed to his memory, and also orders that the Secretary convey to his family an expression of our very deep sympathy in their bereavement.

Respectfully submitted,

(Signed) W. P. Coan, M. D.,

J. J. Lindsay, M. D.

Jos. W. Allen, M. D.

Spartanburg, S. C.

November 28, 1924.

O. C. Bennett, Secretary.

ALLENDALE COUNTY SOCIETY MEETS

At a meeting of the Allendale County Medical Society held January 13, 1925 the following officers were elected:

President, Dr. W. H. Breeland, Allendale, S. C.; Vice-President, Dr. W. R. Tuten, Fairfax, S. C.; Secretary-Treasurer, Dr. J. E. Warnock, Allendale, S. C.

J. E. Warnock, Secretary.

NEWS ITEMS

A NEW MERCURIAL

What has been done for arsenic by the skill and patience of Ehrlich and his co-workers—that is to say, the presentation of it in a form that combines spirocheticidal activity with comparative safety of administration—has been done, it seems, for mercury also. This has long been the aim of chemical research—to find a mercurial compound that would kill the spirochete of syphilis without injuring the patient; in other words, a mercurial compound that could be administered in spirocheticidal doses.

Dr. Gruhzt, of the Parke-Davis laboratories, reports the demonstration of this property in Mercurosal administered intravenously to animals inoculated with syphilis. Two, or at the most three, doses eliminated the spirochetes completely from the syphilitic lesions. The doses corresponded to a dose of 0.2 gram for a man weighing 150 lbs., and it is believed that ten or twelve intravenous injections of a dose of this size should change a positive Wassermann to a negative in the primary stage of syphilis. Nevertheless, arsenic also (in the form of orsphenamin) or bismuth (as the salicylate) is advised, and a continuation of the treatment at intervals for two or three years.

Literature on Mercurosal is offered to physicians by Parke, Davis & Co., manufacturers.

LIST OF MEMBERS OF MEDICAL SOCIETY OF SOUTH CAROLINA (Charleston)

Aimar, Charles P., Charleston.
Baker, Archibald E., Baker Sanatorium,
Charleston.
Baker, Archibald E., Jr., Charleston.
Baker, Barnwell R., Baker Sanatorium,
Charleston.

Ball, J. Austin, Charleston, S. C.
Banov, Leon, Charleston.
Baynard, Ernest C., Charleston.
Barnwell, E. Harry, Martins Point.
Beach, M. W., Charleston.
Beckman, John C., Charleston.
Boette, Chas. D., Charleston.
Bowers, T. E., Charleston.
Brewer, Chas., Charleston.
Buist, A. Johnston, Charleston.
Burn, J. Walter, Charleston.
Cain, Frank C., Charleston.
Cannon, Jos. H., Charleston.
Cathcart, Robt. S., Charleston.
Chamberlain, Olin B., Charleston.
Deas, Henry, Charleston.
De Saussure, Henry W., Charleston.
Dieterich, F. L., Medical College, Charleston.
Frampton, James, Mt. Pleasant.
Frampton, Wm. H., Charleston.
Finger, J. Avery, Charleston.
Gantt, Robt. B., Charleston.
Green, J. Mercier, Charleston.
Heidt, G. Frank, Charleston.
Hiott, J. T., Charleston.
Jackson, Harry P., Charleston.
Jagar, Eugene L., Charleston.
Jenkins, Hawkins K., Mullins.
Johnson, Francis B., Medical College, Charleston.
Johnson, Wm. Henry, Charleston.
Kollock, Chas. W., Charleston.
LaRoche, John J., Charleston.
McInnes, G. Fleming, Charleston.
McInnes, B. Kater, Charleston.
McCrary, Robt. L., Charleston.
Maguire, Daniel L., Charleston.
Martin T. Hutson, Charleston.
Mazyck, McMillan K., Charleston.
Mitchell, J. Creighton, Charleston.
Mood, Geo. McF., Charleston.
Moore, Mat. S., Charleston.
O'Driscoll, W. Cyril, Medical College, Charleston.
Parker, Edward F., Charleston.
Parker, Frank L., Charleston.
Pearstine, Kivy, Charleston.
Pettus, Wm. J., U. S. Marine Hospital, San Francisco, Cal.
Phillips, W. F. R., Medical College, Charleston.

Plowden, H. H., Medical College, Charleston.

Preston, R. W., Charleston.

Price, Wm. H., Charleston.

Price, F. Raymond, Charleston.

Ravenel, Jas. J., Charleston.

Rhame, J. Sumter, Charleston.

Rhett, Robt. Barnwell, Charleston.

Rhett, Wm. P., Charleston.

Rhett, Wythe M., Charleston.

Rutledge, Edward, Charleston.

Sharlock, T. M., Charleston.

Scott, Jas. E., Charleston.

Simons, T. Grange, Charleston.

Smith, Josiah E., Charleston.

Smith, Wm. Atmar, Charleston.

Sparkman, Edward H., Jr., Charleston.

Speissegger, Chas. A., Charleston.

Taft, A. Robt., Riverside Infirmary, Charleston.

Taft, Robt. B., Riverside Infirmary, Charleston.

Taylor, J. Taliferre Charleston.

Townsend, John F., Charleston.

Van de Erve, John, Medical College, Charleston.

Waring, J. Cash, McClellanville.

Wild, W. W., North Charleston.

Wagener, H. P., Mayo Clinic, 102-110 2nd Ave.,

Wellbrock, W. L. A., Charleston.

Wilson, I. Ripon, Charleston.

Wilson, Lester A., Charleston.

Wilson, Robt., Charleston.

LIST OF MEMBERS OF ALLENDALE COUNTY MEDICAL SOCIETY

Loadholt, G. W. I., Fairfax.

Tuten, W. R., Fairfax.

Folk, J. L., Fairfax.

Hickson, S. R., Fairfax.

Harter, A. J., Olmers.

Breeland, W. II., Allendale.

Warnock, J. E., Allendale.

CORRESPONDENCE

535 North Dearborn St., Chicago, Ill.

January 31st, 1925.

Dr. E. A. Hines, Editor,

Jour. S. C. Med. Assn.,

Seneca, S. C.

Dear Doctor:

In addition to the articles enumerated in our letter of Dec. 27, 1924, the following have been accepted:

Benzol Products Co.

Cinchophen—B. P. C.

Hynson, Westcott and Dunning.

Antimony Sodium Thioglycollate

Antimony Thioglycollamide

Eli Lilly and Co.

Iletin (Insulin-Lilly) U—10, 10 Cc.

Iletin (Insulin-Lilly) U—20, 10 Cc.

Iletin (Insulin-Lilly) U—40, 10 Cc.

H. K. Mulford Co.

Ampules Solution Pituitary Extract-Mulford, 0.5 Cc.

Iodo-Casein With Chocolate.

Parke, Davis and Co.

Iron Citrate Green

Ampules Iron Citrate Green-P. D. and Co. 1-4 grain.

Ampules Iron Citrate Green-P. D. and Co. 3-4 grain.

Ampules Iron Citrate Green-P. D. and Co. 1 1-2 grain.

Mercurettes

Proposote

Proposote Capsules 5 Minims.

Proposote Capsules 10 Minims.

Powers-Weightman-Rosengarten Co.

Tryparsamide.

Pure Gluten Food Co.

Hoyt's Protein Cereal.

Sharp and Dohme.

Tincture Digitalis Purified (Fat Free)

—S. and D. C.

Standard Chemical Co.

Standard Radium Solution for Intravenous Injection, 5 micrograms Ra.

Standard Radium Solution for Intravenous Injection, 10 micrograms Ra.

Standard Radium Solution for Intravenous Injection, 25 micrograms Ra.

Yours truly,

W. A. Puckner, Secretary,

COUNCIL ON PHARMACY AND CHEMISTRY.

TRUTH ABOUT MEDICINES

NEW AND NONOFFICIAL REMEDIES

Diphtheria Toxin Antitoxin Mixture O. 1L+ (Gilliland).—A diphtheria toxin antitoxin mix-

ture (see New and Non-official Remedies 1924, p. 299), each Cc. of which represents 0.1L+ does of diphtheria toxin neutralized with the required amount of diphtheria antitoxin. Marketed in packages of three 1 Cc. ampules; in packages of thirty 1 Cc. ampules; in packages of three 1 Cc. syringes; and in ampules containing respectively 10 Cc., 20 Cc., and 30 Cc. Gilliland Laboratories, Ambler, Pa.

Mallinckrodt Tetrabromphenolphthalein Sodium Salt.—A brand of tetrabromphenolphthalein sodium—N. N. R. For a discussion of the properties, actions, uses and dosage, see Jour. A. M. A., Dec. 27, 1924, p. 2095. Mallinckrodt tetrabromphenolphthalein sodium salt it supplied in 5 Gm. ampules. Mallinckrodt Chemical Works, St. Louis. (Jour. A. M. A., Jan. 3, 1925, p. 37).

Bacillus Bulgaricus-Squibb.—A culture of *Bacillus bulgaricus*, marketed in tubes, each containing 12 Cc. *Bacillus Bulgaricus-Squibb* is designed for internal administration and for direct application to body cavities, abscesses and wounds. See "Lactic Acid-Producing Organisms and Preparations," New and Non-official Remedies 1924 p. 169. E. R. Squibb and Sons, New York.

Neorobin.—A product obtained by the reduction of The actions and uses of Neorobin are the same as those of chrysorobin chrysorobin. It is claimed that neorobin is somewhat more active than chrysorobin and that its staining qualities are less than those of chrysorobin. Like chrysorobin, neorobin is used in the treatment of skin diseases, especially in psoriasis. It is used in the form of ointments which must be freshly prepared. Neorobin is marketed in vacuum sealed tubes containing 1 and 5 grains, respectively. H. K. Mulford Co., Philadelphia.

Intracutaneous Tuberculin for the Mantoux Test.—A preparation of Tuberculin Koch (New and Non-official Remedies 1924, p. 309) marketed in packages of one vial containing 0.0001 Gm. tuberculin "O. T." accompanied by a vial containing physiological solution of sodium chloride sufficient to make 1 Cc. Lederle Antitoxin Laboratories, New York. (Jour. A. M. A., Jan. 10, 1925, p. 119).

Tablets Benzyl Fumarate—Abbott, 5 grains.—Each tablet contains 5 grains of benzyl fumarate—Abbott (Jour. A. M., July 24, 1924, p. 41). The Abbott Laboratories, Chicago.

Ampules Solution Pituitary Extract-Mulford, 0.5 Cc.—Each ampule contains 0.5 Cc.

of pituitary solution—Mulford (New and Non-official Remedies, 1924, p. 229, H. K. Mulford Co., Philadelphia.) (Jour. A. M. A., Jan. 17, p. 203).

Ovarian Substance—L. and F. Desiccated.—The entire fresh ovary of the hog, freed of of extraneous matter, dried and powdered without the addition of diluent or preservative. For a discussion of the actions and uses of ovary preparations, see New and Non-official Remedies, 1924, p. 220. The product is marketed in 2 and 5 grain capsules and in 2 and 5 grain tablets. Lehn and Fink, Inc. New York.

Ovarian Residue—L. and F. Desiccated.—The residue from the fresh ovary of the hog, after removal of the corpus luteum, dried and powdered without the addition of preservative or diluent. For discussion of the actions and uses of ovary preparations, see New and Non-official Remedies 1924, p. 220. The product is marketed in the form of 5 grain capsules and 2 and 5 grain tablets. Lehn and Fink, Inc., New York.

Corpus Luteum—L. and F. Desiccated.—The fresh substance of the corporea lutea of the hog, dried and powdered without the addition of diluent or preservative. For a discussion of the actions and uses of ovary preparations, see New and Non-official Remedies, 1924, p. 220. The product is marketed in the form of 2 and 5 grain capsules and 2 and 5 grain tablets. Lehn and Fink, Inc., New York.

Proposote.—A condensation product of creosote and phenylpropionic acid. It contains the equivalent of 50 per cent. of creosote. Proposote is not decomposed by the gastric fluids and passes the stomach practically unabsorbed. It is decomposed in the intestine and its components are chiefly eliminated through the kidneys, but it is claimed that a part of the liberated creosote is eliminated through the respiratory tract. Based on this latter elimination, the administration of proposote is claimed to be of value in bronchitis and coughs due to bronchial infections. Proposote is used for the same purposes for which creosote is administered. It is marketed in the form of capsules containing 5 and 10 minims, respectively. Parke, Davis and Co., Detroit.

Standard Radium Solution for Intravenous Injection, 5 micrograms Ra: Each ampule contains radium chloride—Standard Chemical Co. (New and Non-official Remedies, 1924, p. 277) equivalent to 5 micrograms of radium element in physiological solution of so-

dium chloride, 2 Cc. Radium Chemical Co., Pittsburgh.

Standard Radium Solution for Intravenous Injection, 10 micrograms Ra: Each ampule contains radium chloride-Standard Chemical Co. (New and Non-official Remedies, 1924, p. 277) equivalent to 10 micrograms of radium element in physiological solution of sodium chloride, 2 Cc. Radium Chemical Co., Pittsburgh.

Standard Radium Solution for Intravenous Injection, 25 micrograms Ra: Each ampule contains radium chloride-Standard Chemical Co. (New and Non-official Remedies, 1924, p. 277) equivalent to 25 micrograms of radium element in physiological solution of sodium chloride, 2 Cc. Radium Chemical Co., Pittsburgh.

Iletin (Insulin-Lilly) U—10, 10 Cc.: Each Cc. contains 10 units of iletin (insulin-Lilly) (New and Non-official Remedies, 1924, p. 152). Eli-Lilly and Co., Indianapolis, Ind.

Iletin (Insulin-Lilly) U—20, 10 Cc.: Each Cc. contains 20 units of iletin (insulin-Lilly) (New and Non-official Remedies, 1924, p. 152). Eli Lilly and Co. Indianapolis, Ind.

Iletin (Insulin-Lilly) U—40, 10 Cc.: Each Cc. contains 40 units of iletin (insulin-Lilly) (New and Non-official Remedies, 1924, p. 152). Eli Lilly and Co., Indianapolis, Ind.

Tincture Digitalis Purified (Fat Free)—S. and D.—A fat-free tincture of digitalis corresponding in strength to tincture of digitalis—U. S. P., containing 45 per cent. of alcohol. It is standardized by the one hour frog method of the U. S. Pharmacopoeia. The actions, uses and dosage are the same as that of tincture of digitalis U. S. P. Tincture digitalis purified (fat-free)—S. and D. was introduced at a time when the "fat" of digitalis was believed to cause gastric disturbances. At present this claim of superiority is not tenable and the preparation is sold simply as a standardized tincture of digitalis. Sharp and Dohme, Baltimore. (Jour. A. M. A., Jan. 24, 1925, p. 285).

Antimony Sodium Thioglycollate.—A compound formed by dissolving antimony trioxide in a solution of a mixture of sodium thioglycollate and thioglycollic acid. It contains not less than 37 per cent. of antimony. The actions and uses of antimony sodium thioglycollate are the same as those of antimony thioglycollamide, but it is more soluble and in higher doses appears to be less toxic. Hynson, Westcott and Dunning, Baltimore. (Jour. A. M. A., Jan. 31, 1925, p. 369).

PROPAGANDA FOR REFORM

Hoyt's Gluten Flakes Not Accepted for N. N. R.—Hoyt's Gluten Flakes is marketed by the Pure Gluten Food Co., New York, as a ready-to-eat gluten preparation. The claims are made that it is "A perfect gluten," that it contains "40 per cent. Protein" which is asserted to be the government standard for gluten, and that it is "free from starch." These statements of composition are misleading. A product containing 40 per cent. of protein is not a "perfect gluten" nor is 40 per cent. the government standard for gluten flour, but the lowest limit of protein to which the term gluten flour may be applied without incurring danger of prosecution by the federal authorities. The Council on Pharmacy and Chemistry declared Hoyt's Gluten Flakes inadmissible to New and Non-official Remedies because (1) its composition is not correctly declared and (2) the claims for its effects on nutrition and health are unwarranted and misleading. (Jour. A. M. A., Jan. 3, 1925, p. 53).

Restor Vin Not Accepted For N. N. R.—Restor Vin is the therapeutically suggestive name under which the Robinson-Pettet Co., Louisville, Ky., markets a mixture stated to have the following composition: solution of albuminate of iron 8 pints, detannated wine of wild cherry 12 pints, glycerin 8 pints, elixir or calisaya 12 pints, tincture of hydrastis 1 pint, hypophosphorous acid 8 ounces, solution of saccharin 4 ounces, calcium glycerophosphate 1 ounce, water 16 ounces. The Council on Pharmacy and Chemistry found Restor Vin inadmissible to New and Non-official Remedies because it is an unscientific mixture marketed under a therapeutically suggestive name and with unwarranted therapeutic claims that may lead the public to depend on this "cordial" in serious conditions. (Jour. A. M. A., Jan. 3, 1925, p. 54.)

Leucotropin.—Leucotropin is a German proprietary exploited by Morgenstern and Co., New York. It is to be administered intravenously. From the advertising it would appear that "Leucotropin" is a molecular combination of hexamethylenamin and cinchophen. It is most probable, therefore, that the product will merely have the effects of its two components. There is no warrant for the intravenous administration of hexamethylenamin, and it is difficult to believe that the intravenous use of cinchophen will give results materially different from those obtained when cinchophen is given by mouth. A letter has been sent out by Morgenstern and

Co., which suggests that two doses will be sufficient to "judge the effects" of this German synthetic. This, of course, was an appeal to the uncritical. (Jour. A. M. A., Jan. 3, 1925, p. 56).

More misbranded Nostrums.—The following products were the subjects of prosecution by the authorities charged with the enforcement of the federal Food and Drugs Act: Nervtone Tablets No. 1 (A. F. Schambier), containing in each tablet approximately, mercuric chlorid 1-60 grain, strychnin sulphate 1-120 grain, arsenic trioxide 1-100 grain, iron sulphate 3 grains together with aloes and cascara sagrada extract. Nervtone Tablets No. 2 (A. F. Schambier), containing in each tablet approximately, strychnin sulphate 1-120 grain, together with belladonna extract, cascara and aloes. Lafayette Pain Anodyne (Lafayette Co.), consisting essentially of spearmint and cassia oils, camphor, capsicum, alcohol and water. (Jour. A. M. A., Jan. 10, 1925, p. 135.)

Colodine and Colobromodine Not Accepted for N. N. R.—Colodine and Colodromodine are products of the Colloidal Laboratories, Philadelphia. They are stated to be the invention of Harry J. Novack, M. D., and the claims in the advertising are based on a publication by Dr. Novack. The nature and composition are not clearly stated; according to the label, they contain respectively, iodine and iodine and bromine in "colloidal form." From vague statements made, it may be concluded that Colodine is an iodine treated fat, the nature of which is kept secret and that it does not contain iodine in colloidal form. Colobromodine is stated to be prepared from Colodine by the addition of bromine. The claims and statements made in regard to Colodine appear to be governed by imagination rather than by observation. The claims cover all conditions for which iodine medication has been employed at various times—and some additional ones, some of which are not only unreasonable but dangerous. The claims advanced for Colodine are extended to Colobromodine with the addition that from the latter may also be obtained "the sedative action of pure bromine". The Council on Pharmacy and Chemistry found Colodine and Colobromodine unacceptable for New and Non-official Remedies because (1) the statements made in regard to their chemical character are indefinite and misleading; (2) the statements of their pharmacologic and therapeutic action are misleading and unwarranted, and (3) the cir-

cular included with the trade package may lead to their ill-advised use by the public. When the Council sent its report to the Colloidal Laboratories, the firm submitted a reply in which it was promised that the circular would be revised to remove conflict with Rule 4 and submitted a proposed revision. The information failed to clear up the contradictory statements of composition (Rule 1) and still contains dangerously misleading therapeutic claims (Rule 6). (Jour. A. M. A., Jan. 10, 1925, p. 135.)

Somnos.—Somnos is marketed by the H. K. Mulford Co. It was investigated by the Council on Pharmacy and Chemistry in 1906. The committee that made the investigation was unable to find that Somnos was less toxic than hydrated chloral or that it had a less depressing effect on temperature, respiration or circulation. On the contrary, the physiological effects were indistinguishable from hydrated chloral. (Jour. A. M. A., Jan. 10, 1925, p. 136.)

Colon Bacillus Vaccine, Gonococcus Serum and Gonococcus Vaccine Omitted from N. N. R.—The Council on Pharmacy and Chemistry reports that all colon bacillus vaccines, gonococcus serums and gonococcus vaccines have been omitted from New and Non-official Remedies. The Council took this action because an examination of the existing evidence goes to show that these preparations are not of therapeutic value. (Jour. A. M. A., Jan. 17, 1925, p. 220.)

Loeflund's Food Maltose Not Accepted For N. N. R.—Loeflund's Food Maltose is claimed to be composed of dextrose 59.7 per cent., maltose 40 per cent. and sodium chlorid 0.3 per cent. Since dextrin is the preponderating constituent of the product, the Council on Pharmacy and Chemistry holds it incorrectly named, and on this account ineligible for New and Non-official Remedies. (Jour. A. M. A., Jan. 17, 1925, p. 220.)

Carsinol Not Admitted to N. N. R.—Carsinol is marketed by the Carsinol Research Laboratories, St. Joseph, Mo. In the advertising it is stated that "Carsinol is a new and novel germicide, developed through four years diligent research," and that its chemical name is "ortho-phenol-mercuric-chlorate." From the analysis made in the A. M. A. Chemical Laboratory it appears that Carsinol is essentially a solution containing 11.7 per cent. of sodium chlorate, 0.01 per cent. of mercuric chlorid and 0.02 per cent. of phenol. The claimed composition of the product, therefore, is obviously false and misleading.

The Council on Pharmacy and Chemistry declared Carsinol inadmissible to New and Non-official Remedies because it is marketed under a false statement of composition and a non-descriptive name, and unwarranted therapeutic claims that may lead the public to place dependence on it. (Jour. A. M. A., Jan. 17, 1925, p. 221.)

Sanocrysin, The Mollgaard Tuberculosis Remedy.—The first copies of a book by Mollgaard and his co-workers describing experiments with sodium auric thiosulphate, for which the name "Sanocrysin" has been registered, have been received in the United States. The outstanding fact in connection with Sanocrysin is that it is only the name that is new. The salt is an old one and is now used in the arts. Mollgaard claims to have improved the process of preparation to remove toxic substances. But one is impressed with the fact that Mollgaard's preparation is dangerous unless its use is carefully supervised, especially in tuberculous animals or persons. Mollgaard claims to have rendered the dangers less serious by the use of serum from calves or horses previously infected with dead tubercle bacilli. While Mollgaard does not claim that the use of the serum takes any part in the cure which Sanocrysin is said to bring about, one cannot help feeling, when reading the results of his experiments that it is the conjunction of the two substances which effect whatever curative influence the treatment may have. The evidence for the value of this treatment in tuberculosis, however, is not convincing. In the United States the new treatment cannot be sold until it is licensed by the United States Public Health Service. This Service is carrying out experiments to determine if a license may be granted. Meanwhile the Council on Pharmacy and Chemistry will investigate and issue a preliminary report. In view of the dangers involved in the use of Sanocrysin, the best advice to those suffering from tuberculosis is to continue the well known and well tried methods of sanatorium treatment. (Jour. A. M. A., Jan. 24, 1925, p. 287.)

Beto.—Beto is advertised as a "Blessing to Diabetics." Like most nostrums sold for the alleged cure of diabetes, Beto is featured as a product whose use makes it unnecessary for the diabetic to diet. When first put on the market, Beto was sold and advertised exclusively as a cure for diabetes. Later, it was recommended, in addition, for high blood pressure, "all kidney troubles" and dropsy. Beto comes in the form of tablets

and sells at \$5.00 per package. The A. M. A., Chemical Laboratory reports that the product may be considered to be composed of talc 3 per cent., magnesium sulphate U. S. P., 97 per cent, and oil of cinnamon, a trace. Each tablet was equivalent to approximately 7 gm. of Epsom salt, or one half the dose given in the U. S. Pharmacopoeia. Thus the purchaser of Beto pays 5.00 for 1 1-2 pounds of Epsom salt, which can be bought for 15 cents a pound. Beto is not a cure for diabetes and to sell Epsom salt under the claim that it is a cure and with the deadly dangerous advice that when taking it, it is unnecessary for the diabetic to diet, is an offense against business morals and a menace to the public health. (Jour. A. M. A., Jan. 24, 1925, p. 304.)

Kaffee Hag.—Kaffee Hag was found to contain 0.03 per cent. of caffeine and 11.47 per cent. of caffetannic acid, which agreed with the claim made for it, that 95 per cent. of the caffeine was removed. A later analysis showed Kaffee Hag to contain a somewhat larger amount of caffeine, namely 0.12 per cent. A still more recent examination showed the presence of 0.09 per cent. caffeine. Assuming that the average coffee contains 1.25 per cent. caffeine, the amount of caffeine remaining in Kaffee Hag should be close to 0.06 per cent. to agree with the claim that 95 per cent. of the caffeine is removed. (Jour. A. M. A., Jan. 24, 1925, p. 306.)

Colloidal Gold Not Accepted for N. N. R.—"Colloidal Gold" (Kahlenberg-Klaus Co.) is claimed to have been developed by Professor Louis Kahlenberg of the University of Wisconsin and Dr. Edward H. Ochsner of Chicago. The chief advertising matter is a circular which states that the remedy "Has proved to be far superior to X-Ray and radium in the treatment of inoperable cases of cancer and also as post-operative treatment." The solution is claimed to contain one one-thousandth of one grain of pure gold in colloidal form in every ten drops. The remedy is sold in four-ounce bottles at \$5.00 per bottle. Calculation shows that the value of the gold in a bottle is less than one cent. In response to a letter from the Council on Pharmacy and Chemistry asking for evidence to substantiate the claims for the preparation. The manufacturer referred to an article by Dr. E. H. Ochsner. The article contains reports of four cases. In but one of the four cases was the diagnosis proved by microscopic examination and death from cancer indicates that the colloidal gold had no effect on the disease. In the other three

cases there was no microscopic examination of the tumor. Every surgeon and pathologist of wide experience knows how misleading the gross appearance of tumors may at times be. It is almost inconceivable that a serious investigator of a method of treating cancer should have neglected such a obvious and simple means of controlling his work. Until more critically studied cases, supported by microscopic examination of the tissues, are reported, in which there has been definitely demonstrable retrogression or disappearance of the tumors, the Council on Pharmacy and Chemistry sees no reason for believing that "Colloidal Gold" offers anything more in the treatment of carcinoma than do the other colloidal preparations that have preceded it. The Council found "Colloidal Gold" inadmissible to New and Non-official Remedies because the claims advanced for it are unwarranted. (Jour A. M. A., Jan. 31, 1925, p. 387.)

Calcreose With Iodin.—The Council on Pharmacy and Chemistry reports that Tablets Calcreose with Iodin are unacceptable for New and Non-official Remedies because the composition of the product is unscientific,

and its use is, therefore, inimical to the interests of the public and the medical profession. The Maltbie Chemical Co., which markets the tablets, claims that each tablet contains calcreose 4 grains, and iodine 1-30 grain. The use of the tablets by the physician would mean that the patient in addition to the required dose of iodine would also have to take the creosote compound, calcreose. The creosote compound might be superfluous or contraindicated. (Jour. A. M. A., Jan. 31, 1925, p. 388.)

Tripp's "Liquor Rheumatica".—The advertising of the Norwood Pharmaceutical Co., Chicago, does not appear to contain any definite information in regard to the composition of the preparation. However, the presence of potassium iodide, calisaya, cimicifuga and "Phytolacca-Rheuma" are mentioned. Cimicifuga is one of a class of domestic medicines that was tried in a great variety of conditions and was not found to possess definite value. Books on materia medica appear to contain no reference to "Phytolacca-Rheuma". "Liquor Rheumatica," Dr. Tripp) is a shotgun mixture of indefinite composition for which unwarranted claims are made. (Jour. A. M. A., Jan. 31, 1925, p. 390.)

BOOK REVIEWS

OPERATIVE SURGERY. Covering the Operative Technic involved in the operations of general and sepcial surgery. By Warren Stone Bickham, M. D., F. A. C. S. Former Surgeon in charge of General Surgery, Manhattan State Hospital, New York, Former Visiting Surgeon to Charity and to Tuoro Hospitals, New Orleans. In six octavo volumes totaling approximately 5400 pages with 6378 illustrations, mostly original and separate Desk Index Volume. Volume VI, completing the set, contains 989 pages with 1224 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$10.00 per volume. Sold by subscription only. Index Volume Free.

Volume six and the desk index completes one of the most magnificent works on operative surgery ever published in America. The illustrations throughout the six volumes are superb.

A TEXT-BOOK OF PHYSIOLOGY: FOR MEDICAL STUDENTS AND PHYSICIANS. By William H. Howell, Ph. D., M. D., Professor of Physiology in the School of Hygiene and Public Health, Johns Hapkins University, Baltimore. Ninth Edition, Thoroughly Revised. Octavo of 1069 pages,

308 illustrations. Philadelphia and London: W. B. Saunders Company, 1924. Cloth, \$6.50.

The author of this volume has an international reputation as a teacher and writer. This is the ninth edition and its probably the leading text-book in the medical schools of this country.

SURGICAL PATHOLOGY. By William Boyd, M. D., M. R. C. P. Ed., F. R. S. C., Professor of Pathology, University of Manitoba; Pathologist to the Winnipeg General Hospital, Winnipeg, Canada. Octavo of 837 pages with 349 illustrations and 13 colored plates. Philadelphia and London: W. B. Saunders Company, 1925 Cloth \$10.00 net.

W. J. Mayo says in his foreword to this book, "What is needed today in the literature of surgical pathology is a work that will serve as a hand book to the surgeon and the internist and a guide to the beginner in the field of medicine.

This is one of the most delightful books on pathology we have had the pleasure of reviewing for a long while. The illustrations are most excellent and the subject matter of intense to any physician or surgeon regardless of his speciality.

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The Journal OF THE South Carolina Medical Association

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EDITORIAL

AIKEN SOCIETY REORGANIZED

The Aiken County Medical Society was reorganized February 23rd. under most favorable promise of uninterrupted success in the future. This Society having in its midst one of the world's famous health resorts and in close contact with many distinguished people, scientific and otherwise has the nucleus for marked leadership as a County Medical Society. On our visit we noticed the presence of several physicians who have been in practice near half a century. There were also young and middle aged physicians with their inspiring enthusiasm.

In passing it may be noted that Aiken County has an admirable County Health Department. We went over the records with the County Health Officer, Dr. Hall

Farmer. Dr. Farmer is also Secretary of the County Medical Society, a most fortunate arrangement.

Aiken has a splendid hospital which has been closed for some time but efforts are being made to reopen it and this will assure a center for the further stimulation of the scientific interests of the County Medical Society. The following State Officers were present at the reorganization meeting, Dr. D. M. Crosson, President, Dr. E. A. Hines, Secretary and Dr. C. I. Green, the new Councilor of the District. Dr. W. P. Timmerman, past President was also present and read a splendid paper on the County Medical Society.

The luncheon provided by the Society at the Aiken Hotel added very much to the social features of the occasion.

Aiken County has about thirty doctors,

the majority of whom were at this meeting. Under the splendid leadership of Dr. B. F. Wyman, President, the Aiken County Medical Society will go forward in 1925.

THE ANNUAL EXAMINATION

The propaganda for periodic or better annual medical examination on one's birthday is gaining tremendous impetus. Professional and lay movements in this direction are multiplying in every state in the Union. The Bureau of Health and Public Instruction of the A. M. A. has done a prodigious amount of work along this line.

The South Carolina Medical Association "never the last to lay the old aside, if not always the first by whom the new is tried" must vigorously take up the matter at once.

Precept never yet succeeded in securing a following anything like example. For this purpose, it is planned to arrange for a physical health examination, conducted by a dozen or more of our most reputable physicians over the state, for every physician attending our State meeting who cares to take advantage of it.

The Medical Society of the State of Pennsylvania conducted a health examination at its state meeting in October last, receiving the unqualified endorsement of all present, and doing an incalculable amount of good from every point of view for the future of medicine.

Such an examination serves at least two or three excellent purposes. It advertises the eminent wisdom of an annual examination, both to the profession and the public in an unusually acceptable and responsive way, by the good example thus set by the physician himself, and elimination of personal factors such as the fear of pathologic findings, pecuniary gain for the physician, etc. Then, as Dr. Piersol, who was one of the examiners writes, it calls attention to minor as well as major defects in the examinee, and also shows him how our most capable and careful doctors conduct a modern physical examination.

With this in view and because someone must start the ball rolling, Dr. Van de Erve of the department of Physiology at our Medical College in Charleston will undertake to make personally specific and specifically personal all the arrangements required to extend an opportunity to every physician attending our meeting at Spartanburg, April 21st-23rd., next, by way of securing offices from Spartanburg physicians where such examination can be conducted, etc. In brief, the plan is this:

1. To each examiner will be assigned four doctors who have made application for this health examination.

2. Each examination will occupy not more than one half hour.

3. Each examinee must bring a history blank carefully filled in along with a report of his urinal examination, the usual twenty-four hour specimen.

Since no time is to be lost, and the benefits that accrue for the doctor who wants such an examination and especially the educational advertising to the lay public are incalculable, let every physician intending to avail himself of this opportunity, communicate at once with Dr. J. Van de Erve, Medical College, Charleston, S. C., who will provide blanks and furnish specific details as far in advance of the meeting as is feasible and prompt response of our doctors permits.

SPARTANBURG MEETING NOTES.

While the Journal will issue a special Spartanburg number in April, giving details of the meeting of the State Medical Association, April 21st, 22nd, 23rd, we wish to call attention to some of the plans.

It should be noted that the House of Delegates will convene at eight p. m. Tuesday, April 21st. Clinics will probably be held on the mornings of the twenty second and twenty third, eight to nine thirty. The scientific sessions to follow immediately thereafter. The Woman's Auxiliary this year is a firmly established institution and

ample provision will be made for the entertainment of the wives and daughters of the members. The Alumni luncheon which has been such a delightful feature of previous years will be repeated on Wednesday, 22nd. The State Health Association will meet on Tuesday, 21st., the State Pediatric Society and the State Eye, Ear, Nose and Throat Society will hold their meetings as usual. The Woman's Auxiliary under the Presidency of Mrs. Vance Brabham of Orangeburg has an attractive program under way. The Cleveland Hotel has been selected for the headquarters, other hotels are, the Franklin, Clinchfield and Gresham. Dr. J. E. Edwards is the Chairman of the general Committee on Arrangements and letters may be addressed to him at Spartanburg for further information. Indications are that this will be the banner meeting in our history.

PROVISIONAL PROGRAM 77TH ANNUAL MEETING, SPARTANBURG, S. C., APRIL 21ST, 22ND, 23RD, 1925

Address—Stewart Roberts, Atlanta Georgia, President Southern Medical Association.

Address—Irvin Abell, Louisville, Kentucky, President Southern Surgical and Gynecological Association.

Papers to be rearranged on final program.

SYMPOSIUM ON CANCER

1. The History of Cancer—By J. H. Taylor, Columbia.
2. Grading Tumor Malignancy—By F. H. Dieterich, Charleston.
3. The Surgical Treatment of Cancer.—By LeGrande Guerry, Columbia.
4. X-Ray and Radium Treatment of Cancer—By R. W. Gibbes and Floyd Rogers, Columbia.
5. Cancer As a State Board of Health Problem—By James A. Hayne, State Health Officer, Columbia.
6. Cancer from the General Practitioners Standpoint—By Robert Wilson, Charleston.

SYMPOSIUM ON HOOK-WORM DISEASE

1. The History of Uncinariasis—By Hugh Smith, Greenville.
2. The Pathology of Uncinariasis—By F. M. Routh, Columbia.
3. The Prevention of Uncinariasis—By Leon Banov, Charleston.
4. Uncinariasis As a State Board of Health Problem—By L. A. Riser, Director of Rural Sanitation, Columbia.
1. "Psychology in Its Relation to Physiology"—By Sophia Brunson, Sumter.
2. "Calcification of the Renal Pelvis with Report of a Case, and Slides"—By James J. Ravenel, Charleston.
3. "Intravenous Urotropin in Postoperative Urinary Retention With a Report of a Series of Cases, With and Without this Treatment"—By A. E. Baker, Jr., Charleston.
4. "Some Observations Concerning Focal Infections"—By James S. Fouche, Columbia.
5. "Intussusception in Children"—By George Bunch, Columbia.
6. "Roentgen Diagnosis in Abdominal Pathology with Lantern Slides"—By Arthur Shaw, Columbia.
7. "Puerperal Infection"—By Lester A. Wilson, Charleston.
8. "The Meningitides"—By R. M. Pollitzer, Greenville.
9. "A Diagnostic Method of Asthma"—O. B. Mayer, Columbia.
10. "Fibromyoma Complicating Labor"—By Robert Seibels, Columbia.
11. "Some Observations in Urological Diagnosis with Lantern Slide Demonstrations"—By W. H. Barron, Columbia.
12. Giant Cell Bone Tumors with Slides—By J. S. Rhame, Charleston.
13. "Diphtheria"—By M. W. Beach, Charleston.
14. "The Office Treatment of Ano-Rectal Diseases; With a report of a Few Cases"—By F. M. Durham, Columbia.
15. "Periodic Examination"—By J. Van

de Erve and J. H. Cannon, Charleston.

16. Intraocular Magnetic Foreign Bodies—Localization; Removal with Giant Magnet—By J. W. Jervey, Greenville.

17. "Sudden Death Following Neo-arsphenamin"—By George R. Wilkinson, Greenville.

18. "Subject unannounced"—By Gideon Timberlake, Greenville.

19. "Some Perinent Donts in Venereal Practice".—By Marion H. Wyman, Columbia.

20. "The Transfusion of Blood"—By James, McLeod, Florence.

21. "The Injection Method of Treating Hemorrhoids in Selected Cases; and Some Remarks on Other Rectal Diseases"—By Thos. Brockman, Greer.

22. "Intestinal Obstruction Caused by Non and Post-Operative Adhesions"—By Carl B. Epps, Sumter.

23. "Tonsillectomy Under Local Anesthesia".—By M. R. Mobley, Florence.

ORIGINAL ARTICLES

DISEASES OF THE BILIARY SYSTEM

By Chas. J. Lemmon, M. D., Sumter, S. C.

No real advancement has been made in the diagnosis and treatment of diseases of the biliary system since surgery matured and taught that neuralgia of the stomach, acute indigestion, gastritis, gastralgia, etc., are not separate clinical entities, but symptoms modified perhaps by the extra-gastric location of the lesion. We recognize that intrinsic gastric diseases are few and that there are many points of origin for reflex gastric symptoms simulating diseases of the stomach. Intrinsic gastric diseases, as a rule, give us less concern from a diagnostic or therapeutic point of view today than do reflex gastric symptoms. A well recorded history and a careful physical examination, supplemented by gastric analysis and fluoroscopy, as a rule, readily exclude peptic ulcer, gastric carcinoma, gastric syphilis, and benign gastric tumor as a cause of dyspepsia. There remains gastric symptoms of *tabes dorsalis* and those of reflex origin as a possible source of the dyspeptic's difficulty. Gastric crises are usually readily identified by collateral data.

Read before the Seventh District Medical Society, Manning, S. C., September 11, 1924.

Internists are in dire need of some confirmatory laboratory evidence to aid them in diagnosis of biliary diseases and any proposed procedure of proven merit will be greatly appreciated.

In modern surgery appendicitis and cholecystitis may be considered one, and justly so, for the appendix and the gall bladder are often affected simultaneously, or in sequence; that is, one inflammatory process precedes the origin or exacerbation of the other. Aside from their localizing symptoms they are not easily differentiated, for the systemic symptoms are a reaction to an inflammatory process and their reflex symptoms are gastric. There is one point well worth noting with reference to the reflex symptoms of cholecystitis; that is, the distress is quite prompt, fifteen to thirty minutes after ingestion; not immediately as is so often true of functional gastric distress and not two to three hours after as may happen with an appendicitis, ulcer of course, having been excluded. In order definitely to diagnose gall bladder disease one requires, besides gastric reflex symptoms, localizing symptoms.

The colic of calculi can hardly be missed, the pain and tenderness of acute cholecystitis with peritonitis need little discussion. What is to be done with the severe digestive disturbances, which, because of clinical

data, are suspected of being of cholecystic origin? The laboratory fails us in our hour of need.

Carman disagrees with other Rontgenologists with regard to the frequency with which gall stones can be demonstrated by the Roentgen ray, and surely not all gall bladder diseases are associated with stones. The diagnostic laboratory technique well propounded by Lyon to furnish data to substantiate or disperse suspicions of gall bladder diseases has not been found to be of any real value. It would, therefore, seem that in order to diagnose cholecystitis we must still rely on our old methods; which can briefly be summarized by saying that dyspepsia characterized by accumulation of gas in the upper abdomen, belching, and sour regurgitation occurring quite promptly after a hearty or indigestible meal, after the ingestion of some specific food; such as raw apples, cabbage, or greasy foods, is quite as characteristic of cholecystitis as typical gall stone colic is characteristic of gall stones. If, in addition there, is local tenderness, the diagnosis is better established. Gall stones themselves do not so readily produce this type of dyspepsia, but when cholelithiasis is associated with an active cholecystitis these gastric symptoms are present.

Calculi may remain in a gall bladder a long time without giving rise to symptoms. A calculus in the cystic or common duct causes attacks of colic. Jaundice is an infrequent symptom of gall bladder disease. It is occasionally associated with stone in the cystic duct and is always associated with stone in the common duct.

Treatment—Only one form of treatment, that is, surgery will accomplish cure and should be instituted if the symptoms warrant it. One may temporize with a cholecystitis as with an appendicitis, but the cure lies in cholecystectomy as the cure of appendicitis lies in appendectomy, for we are dealing with an inflammatory process in the walls of the organs.

THE DIAGNOSIS AND MANAGEMENT OF URETERAL STRICTURES AND URETERAL STONES.*

*By Edgar G. Ballenger, M. D., F. A. C. S.,
Professor of Urology Atlanta Medical
College, Medical Department Emory Un-
iversity.*

and

*Omar F. Elder, M. D., Associate Professor
Urology Atlanta Medical College, Medi-
cal Department Emory University. Atlan-
ta, Ga.*

Advances in Urology have brought about definite progress in the management of a certain number of genito-urinary affections; some of these advances, however, have not become sufficiently well known. This seems notably true in the failure to recognize ureteral strictures and in the management of ureteral calculi. The chief object we have in mind in this paper is first to direct attention to the definite though elusive characteristics of ureteral obstructions, and second to present a rational plan for the management of stones in the ureter.

URETERAL STRICTURES

Urologists in the past have been divided into two groups, those who found ureteral strictures and those who did not. Thanks to the persistence of Hunner, the latter group is growing smaller each year. Generally speaking we "only see the things we look for," and many of the bi-products of ureteral strictures, unfortunately for the patients, do not appear to the casual observer to be in any way related to ureteral obstruction. When once fully understood though the surgeon who is alert may recognize the clinical picture of ureteral stricture without much difficulty. By further investigation, as well as by the improvement or cure of the symptoms, the correctness

of such a diagnosis is finally conclusively confirmed.

The trouble comes not from difficulty of making a reasonably accurate diagnosis, but *rather in our failure to suspect the existence of ureteral obstruction.*

THE SYMPTOMS OF URETERAL STRICTURES

In the majority of instances the symptoms have caused the patient to be operated on two, three or more times for seeming gastro-intestinal disturbances. The symptoms, however, have persisted in spite of operations. Pain is always present; it may be mild and nagging at the site of the stricture, or it may be in the kidney region or in the back, lower abdomen, hips or thighs, much as it is when caused by urethral strictures, prostatic disturbances, uterine, ovarian and tubal infections, and other abdominal adhesions, etc.

Persistent or recurrent pain in any of these organs or localities, obscure as to its origin, should arouse suspicion of ureteral obstruction.

Frequent urination or pain in the bladder or along the ureter is often associated with ureteral stricture and is characterized by symptoms like chronic cystitis, perhaps without pus in the urine, however, in sufficient amount to explain the symptoms.

Besides the urinary symptoms, there may be gastric disturbances, nausea, vomiting, gaseous distention, etc., which may be referred entirely to the stomach, gall bladder or appendix. There is sometimes rectal tenesmus before, during or after defecation. The symptoms may be like those caused by kidney or ureteral stones. The negative X-Ray findings may, however, often cause the examination to stop short of ureteral investigation.

Persistence of the symptoms after the usual abdominal operations have failed to give the expected relief should point toward ureteral obstruction as a possible cause.

Tube casts and albumin may be caused by ureteral strictures in addition to the usual pus cells and red cells. Hunner thinks that ureteral stricture is the most frequent

cause of the so called idiopathic hematuria. The frequency in urination usually varies without apparent reason; it is often associated with "nervousness," perhaps as a cause or perhaps as a result.

PHYSICAL FINDINGS

A physical examination of the patient may reveal tenderness in the kidney region or along the ureter. Hunner says it is most characteristic in vaginal examinations in the upper lateral vaginal vault. Slight pressure over the area near where the ureter enters the bladder frequently elicits definite pain. Tenderness may also be found by deep palpation on the ureter where it crosses the brim of the pelvis.

Ureteral strictures are usually bilateral.

The late pathologic lesions of the ureter, renal pelvis and kidney are chiefly those due to back pressure; the pelvis and ureter are more or less dilated and it is quite likely that ureteral or renal stones have been passed, are present or will develop.

To discuss the pyelogram findings would take us deeper into this subject than it is possible to go in this paper.

Briefly stated, we may say that the pathologic findings in ureteral strictures are due to three things; back pressure, infection and stone formation, and these finally result in the well known hydro and pyonephrosis.

DIAGNOSIS OF URETERAL STRICTURES

A bad part of our present diagnostic method is that too frequently the ureteral stricture or ureteral calculus is only recognized after about three or more operations on the appendix gall bladder and uterine adnexa.

Even worse is the fact that we do not take well to the stricture idea and remain skeptical, ignorant, indolent or indifferent. No branch of the medical profession has any monopoly of these undesirable characteristics. We are glad to say, however, that the prejudice against certain of Hunner's ideas regarding ureteral strictures, largely limited to urologists, is rapidly disappearing.

When this paper was started, reference was made to a number of books on surgery and urology to see how adequately the subject of ureteral strictures and calculi was handled, it being our intention to boast a bit about urology and to attack the general surgeon for his failure to recognize only the far advanced results of ureteral strictures, such as hydronephrosis and pyonephrosis, and for his archaic methods of dealing with ureteral stones. To our chagrin, it was found that many of the books on urology were as inadequate in their discussions as were the books on surgery. Unfortunately most of the adequate treatises on this subject are only to be found in the current literature.

We should suspect ureteral stricture where there is pain in the kidney, ureter or bladder region which is more or less constant but which grows worse from time to time, especially in the region of the ureter or kidney after exposure to cold or after something which could have caused hyperemia of the stricture area and a temporary increase in the urinary obstruction.

Furthermore, we should suspect stricture of the ureter when there are symptoms which make us think there is a ureteral stone but the X-Ray examination is negative.

Symptoms of chronic cystitis without sufficient pus and evidences of inflammation also suggest the presence of stricture of the ureter.

Blood and pus in the urine require always an examination to find its *source and cause*. The search for their origin will often elicit the presence of stricture of the ureter.

Obstruction at a given point in the ureter, found repeatedly and especially the hang which comes on the withdrawal of a catheter with a wax bulb, tend strongly to confirm our suspicion of ureteral strictures, which may or may not be sufficient to cause a marked accumulation of urine above the obstruction.

Hunner asserts that the stormy reaction which sometimes follows ureteral catheterization and which is often all out of propor-

tion to the damage done, is very significant of stricture of the ureter and is due to spasmodic contraction at the site of the stricture following the irritation and trauma produced by the catheter. The consequence being an over distention of the pelvis of the kidney with resultant pain.

Finally, relief of the patient's symptoms after dilating the ureter, is of definite diagnostic significance, especially if the pain and symptoms recur in a few weeks or few months and again disappear after the dilation of the ureter.

THE MANAGEMENT OF URETERAL STONES

The modern urologist differs from at least a good part of the general practitioners and surgeons in three important points in the method of dealing with ureteral calculi:

1—The surgeon is inclined to rely upon X-Ray findings in the diagnosis, while the urologist regards a negative X-Ray plate for ureteral stone of no value.

2—The surgeons are likely to keep the patient in bed as long as there are evidences of ureteral attacks, while the urologist lets the patient move about as much as possible, if the stone is small, to keep up the kidney colic until the stone passes.

3—The surgeon is inclined to advise an operation for stones which do not pass in a reasonable length of time, while the urologist favors dilation of the ureter and other cystoscopic manipulations in preference to operative measures, which are finally employed only as a last resort, unless the stone is found to be unusually large.

What reliance can we place on a negative X-Ray picture? In dealing with stones as small as those usually found in the ureter, we would say that a negative plate means little or nothing. Every now and then we see a patient whose Doctor tells us that a stone was suspected but that the X-Ray was negative and that no further effort was made to determine if a stone or stricture was present.

There are a few diseases with symptoms more characteristic than those we call "kid-

ney colic." These symptoms in a patient with microscopic blood in the urine nearly always mean there is a stone or stricture in the ureter, even though the X-Ray is negative.

The difficult ones to recognize are those in which we do not find the typical history, but instead there are perhaps evidences of appendicitis, gall bladder disturbances, and other diseases which produce abdominal pain. It is in these more or less complicated cases in which the findings are atypical that complete examinations are necessary to clear the diagnosis. It should be remembered that calcareous glands and phleboliths are much more frequently present than are ureteral calculi.

The main purpose of the X-Ray picture, where the symptoms and urinary findings are typical, is not to determine the presence of ureteral calculus, but rather to find its size and whether or not there are other and larger calculi in the kidney and for pyelograms.

Renal colic, red blood cells and pus cells in the urine should always be regarded as findings of importance which require a search to determine the source and cause of the blood and pus cells.

Dilation of the ureter with a tapering Garceau catheter affords a useful diagnostic as well a remedial measure. When the ureter is well dilated, a calculus tends to descend and soon after dilation there is likely to be a more or less severe attack of kidney or ureteral pain. Such an occurrence of renal colic suggests ureteral calculi, regardless of the X-Ray findings, or other negative evidences, and we often recover the stones to prove the correctness of such diagnosis. As previously stated, spasm of the strictured ureter due to the irritation at the site of the lesion, may produce symptoms immediately after ureteral dilation not unlike kidney colic from ureteral calculi.

In the past many manipulative measures have been employed to cause stones to pass. At the present we are inclined to regard

dilation of the ureter as the most important measure we can employ. We cannot effect a change in the size of the stone, but we can make the channel larger through which it has to pass.

How long shall we keep a patient in bed because of renal colic? Not infrequently we see a patient who has been confined to bed for a period of weeks on account of renal colic and for fear the attacks may grow worse when the patient gets up. Such treatment tends to cause just the thing we fear most; that is, that the stone may remain in one point of the ureter long enough to produce a dilated point at which place it may make a "permanent home," allowing the urine to pass without further attacks of pain. In such an event, the stone gradually increases in size until cystoscopic manipulation is useless and a major operation becomes necessary for a condition which at an earlier date could have been cured by a minor cystoscopic manipulation.

How does it happen that a minor malady so easily evolves into a major one? Usually by the efforts to make the patient comfortable, disregarding the significance of microscopic blood and pus cells in the last glass of urine and by overconfidence in the negative X-Ray findings.

As long as a small stone in the ureter keeps up kidney colic, the condition may be regarded as favorable and there is a good chance of causing the stone to pass. For this reason, as soon as the pain subsides, we allow the patient to get up and around, hoping other attacks may occur, until the dilation of the ureter and the recurrent attacks cause the stone to pass.

We succeed in obtaining more than 95% of ureteral stones without operative measures. Many stones, of course, would and do pass without any effort on the part of the surgeon. The trouble is we can never tell in advance the character of the stone, whether smooth or rough, whether round or irregular, nor do we know in advance how small is the narrowest point in the ureter, and so we may save valuable time in

leaving to nature a job bigger than she can do.

If a stone is not allowed to remain too long in one place, surprisingly large calculi may be caused to pass down the ureter by extensive dilation with tapering ureteral catheters and bougies.

The general surgeon, as a rule, does not make sufficiently determined and organized effort to obtain stones by cystoscopic measures and is likely to grow restless, as does the patient, and both allow themselves to be persuaded that an operation is required, even though it be a serious one and one that will leave the ureter perhaps narrowed at this point and, therefore, more likely to develop stones in the future. In fact, the operation cannot always be considered a success even when the stone is obtained and the patient recovers and for a while seems normal.

We do not understand very well why stones form, but it is generally admitted by those who have given the most thought and study to this subject that ureteral strictures or obstructions and the coincident infections play an important part. Bearing this in mind, it becomes obvious that by dilating the ureter to allow the stone to pass, we employ our best prophylactic measure against further stone formation, while on the other hand the operative treatment not only does not take care of a stricture which in all probability has been an underlying causative factor, but tends to make a further deposit of scar tissue at the point where the ureter is incised. Therefore, we know that both the immediate and remote danger to the patient is much greater by the operative than the cystoscopic method. Nor is the total amount of pain lessened by the operation, for if the post operative pain does not equal or exceed that caused by the cystoscopic manipulation, the subsequent care of the ureteral stricture will more than make up for the seeming temporary advantage of the operation.

If the surgeon or the urologist takes an intelligent and unbiased view of the facts

concerning ureteral stones, he cannot escape seeing the necessity of the ureteral dilation. Ureteral strictures in the majority of cases are present where there are ureteral calculi.

Briefly stated, as we see it, the management should be about as follows: In the midst of an attack, the patient should be placed in bed and morphine, 1-4 grain with atropine 1-150 grain, should be given hypodermatically. Hot applications, such as a turkish bath towel wrung out of hot water, should be employed on the painful side and hot water bottles should be used to maintain the heat. The morphine may be repeated once, if necessary, without danger, but if more seems required, the danger is increased.

The patient is urged to drink freely of water and is given sodium citrate, 1 drachm three times a day, to render the urine alkaline and to act as a mild diuretic. Purgatives and enemas are given as needed.

The pain usually subsides within a few hours or a day or so and while the patient may be more comfortable, there is probably sufficient uneasiness to keep the patient in fear of another attack. This would seem to be the ideal time to dilate the ureter in order to provide early a larger passageway for the stone to descend.

A catheter as large as possible should be passed as high as possible and allowed to remain in the ureter for a considerable time (1-2 to 24 hours or longer) and if the stone be small, its subsequent passage is easy.

As previously stated, nothing facilitates the passage of a stone as thorough as dilation of the ureter. At first it may be impossible to pass a catheter by the stone. Sometimes a whalebone filliform, or a small catheter, may be coaxed by. If it passes, it should be allowed to remain in the ureter 24 to 48 hours. Within a few days a larger catheter may pass or two or three small ones. Such catheters or filliform usually permit the passage of urine by the stone while the ureter is being dilated.

SUMMARY

Strictures of the ureter are too frequently overlooked. It is not unusual for a patient to be subjected to repeated abdominal operations for symptoms more or less typical of ureteral strictures.

Unfortunately, some of us do not take well to the idea of ureteral strictures and their by-products and so remain skeptical, ignorant, indolent or indifferent. No branch of the medical or surgical world, however, seems to have a monopoly on these undesirable characteristics.

Our most frequent errors are in failing to suspect the existence of ureteral strictures and in the management of ureteral calculi.

Stones in the ureter are due chiefly to local, not to general causes, and these causes are closely allied to ureteral strictures and the tendency to stagnation of the urine, the infection and consequent pyelitis.

The treatment should, therefore, include adequate dilation of the ureters; thus when we apply the best treatment for the strictures and enlarge the passageway for stones, we, at the same time, employ the best measure for the prevention of calculi and other painful pathologic biproducts of ureteral strictures.

THE ADMINISTRATION OF CHLORINE IN DISEASES OF THE RESPIRATORY TRACT.

By W. H. Frampton, M. D., Charleston, S. C.

Before entering into discussion of the administration of chlorine as a medicinal agent it would be well to briefly review the properties of this gas. Chlorine is a member of the family of elements in the seventh periodic group, often referred to as the halogens. Halogen means "Sea Salt Producer" and is applied to this group because they form salts which are found in sea water and which resembles sodium chloride.

Read before the Medical Society of South Carolina, (Charleston County), February 10, 1925.

Chlorine is an important gaseous element and its compounds, with which you are familiar, are quite useful. The gas in a free state is never found in Nature, but its compounds are widely distributed. About two per cent of the total amount of matter in the ocean is chlorine; the salts containing about 55%. Chlorine was discovered by Scheele in 1774, being prepared by heating a mixture of manganese dioxide and hydrochloric acid. It is a greenish yellow gas having a pungent odor, is rather penetrating and if breathed in large quantities is irritating to the mucous membrane of the respiratory passages. It is about 2 1-2 times heavier than air and being an active chemical element unites directly with most of the other elements. It has a marked affinity for water, in that three litres of gas dissolves in one litre of water under ordinary temperature and pressure. Commercially the most striking and useful property of chlorine is its power to bleach; this property depending upon the fact that chlorine inter-acts with water and ultimately liberates free oxygen. It is now also used medicinally, both as a prophylactic and as a therapeutic agent.

HISTORY

It is interesting to know that chlorine was used medicinally as far back as 1824. Lt. Col. H. L. Gilchrist, while searching through some old books in the library of the Surgeon General of the Army found that a famous physician, William Wallace of Dublin, in 1824 had published a paper entitled, "Researches Respecting the Medical Powers of Chlorine Gas." This great research worker was a member of the Royal College of Surgeons in Ireland and prior to the above publication evidently had a knowledge of the efficacy of chlorine, as evidenced by the fact that in 1816 there appeared in the Quarterly Journal of Science the statement that "Chlorine is Known to be an Elementary Body of the Greatest Activity, of the Powers of Which over Diseases we are Nearly in Total Ignorance."

Dr. Wallace gave a description with regard to the application of chlorine to the medical profession in which he stated that from his knowledge of the mode of action of chlorine it might be usefully employed in every disease of whatever kind it may be, which we might naturally hope to benefit. It, therefore, appears to my mind that, even as late as 1824, members of the medical profession were still in the pursuit of the discovery of a panacea. He did stress the point that it should be employed in conjunction with air for the treatment of chronic inflammations of the mucous tissues, such as catarrh, and thus we find that after the lapse of a century, a new remedy advocated then for its effect upon respiratory diseases, springs anew. Time will not permit further statements as to the history of the use of chlorine medicinally, except to state that research workers in various countries since the above time have endeavored to find a proper method of administration. The origin of the present apparently successful use of chlorine, medicinally, dates back to 1918 when the medical officers in our Army, while working along the front lines, observed that notwithstanding the fact that there was raging an epidemic of influenza, those soldiers stationed in the trenches and exposed to chlorine were practically immune to influenza.

These doctors realizing the immunizing and therapeutic effects of chlorine, but without establishing any definite concentration, set to work to test it out and as a result, not only were the cases of influenza reduced, but those suffering from the disease recovered rapidly. About the same time it was discovered that at Edgewood Arsenal there were no cases of influenza recorded among the operatives in the chlorine plant, although every other organization at this Arsenal had its full quota of cases. The above facts were taken cognizance of by the Chief of the Chemical Warfare service and a scientific investigation was commenced under the direction of Lt. Col. Edw. B. Vedder of the Medical Corps of the U. S.

Army. His first investigations were directed along the lines of determining the concentration of chlorine in air necessary to kill certain bacteria, especially those usually found in the respiratory tract. It was finally determined that it required an exposure of one hour of the concentration of .021 MG of chlorine to a litre of air. This concentration is well within the limits of safety, as it would require from two to three hundred times this amount to produce death. Chlorine is an active germicide in aqueous solutions of 1 to 1,000,000. It was determined that the bacteriacidal action of inhaled chlorine was greater than that of chlorine on agar plates. This is explained by the film of moisture present on the mucous surfaces. The concentration of .021 milligrams per litre of air is about ten parts per million, as chlorine is readily soluble in water it remains evident that a concentration of one to one million is easily reached and that in passing over the respiratory tract for one hour it necessarily follows that it must have a germicidal effect. After these preliminary investigations were completed an air-tight chamber was constructed and with a proper control from the outside the required concentration could be obtained. I have constructed in my office an air-tight chamber of approximately 800 cubic feet of space. On the floor is placed a revolving electric fan, which is kept running to circulate the chlorine as it settles to the floor. The ejector is placed on a shelf on the outside, where it is controlled. Before the patient enters 150 cc of chlorine is liberated and during the course of the hour an even flow of the chlorine is maintained; as long as it does not enter the room by pulsations or gusts no unpleasant effects are noticed. The sensations experienced by the patients vary almost as much as that from heat or cold, no two interpret alike, but with the average patient there is noticed, upon entering the room, a certain smarting of the eyes and a slight irritation in the back of the throat which, however, quickly disappears. All ages even from

nursing babies to those far advanced in years inhale the same concentration. My observation has been that no set rule can be laid down for the amount of chlorine to be taken as it depends upon a great many factors, among which may be mentioned the following: The condition of the patient, the susceptibility of some individuals to chlorine, the absorption qualities of the interior of the room and of the clothing worn by the patient, and also the temperature of the room. The main point in the treatment is in keeping the concentration constant. At this point I may mention something about the dangers in using chlorine. It is known to all of us that chlorine was used as a weapon in the late War, but according to the records of the War Department only 1843 casualties from chlorine were reported and of this number but seven were fatal—one-third of 1%. On the other hand since the chlorine investigation has been conducted by the Chemical Warfare Service over 5,000 cases have been treated with not a single bad result. Another line of investigation has been that of visiting the plants of leading chemical manufacturers throughout the country where people have been constantly inhaling chlorine for long periods, and who at different times were exposed to marked concentration with no bad effects reported.

There are many diseases of the respiratory passages and for the sake of convenience may be classified into two main groups. First, those of germ origin; Second, those not of germ origin. Of the latter class it is my opinion that the inhalation of chlorine is of practically no value. The germ diseases of the respiratory tract may be divided into superficial and deep. The results obtained from those of deep involvement are very variable, so that chlorine, therefore, is of marked benefit only in superficial diseases of the respiratory tract. The most prominent among these are head colds, rhinitis, bronchitis, laryngitis, pharyngitis, influenza and whooping cough. Asthma and hay fever do not respond in a satisfactory

manner to chlorine treatment except in those cases where an infection is superimposed. All of us are quite familiar with the on-set, symptoms and pathology of the so-called head colds. If this condition is taken early, before the mucous membrane is very much swollen, the results obtained are gratifying, for it is easily understood that with the passages blocked off and the entrances to the sinuses obstructed that chlorine inhaled cannot reach these parts. The application of adrenalin before the inhalation of chlorine does cause a certain shrinking, and in this way good results may be obtained. The earlier these cases are treated the quicker they respond. In no case, however, does chlorine increase the severity of the cold but invariably either aborts it or clears it up entirely. Since the standardization of this apparatus the number of cases of influenza have been too few to afford a basis of positive statements, especially as influenza is some what difficult to diagnose in the absence of an epidemic and as only those patients who are able to come to the office have been treated. Bronchitis is always relieved and generally cured. The inhalation of chlorine for this particular disease produces the best results. I have had the occasion to treat several cases of chronic bronchitis of many years standing, associated with deafness. In these cases not only has the bronchitis cleared up, but the deafness has been markedly relieved. It is the opinion of the Chief of the Medical Warfare Service that the inhaling of chlorine has a distinctly curative value in whooping cough. Children who had numerous daily paroxysms followed by vomiting and loss of weight after two or three treatments ceased to vomit and the paroxysms were greatly reduced in number and force. As the organism that causes this disease is exceedingly delicate and lives on the surface of the respiratory mucosa there is every reason to believe that it can be eradicated by the inhalation of chlorine. In closing I will state that the medicinal use of chlorine

bestows upon mankind a dual good; first, from a standpoint of preventative medicine and secondly as a therapeutic agent. It is hard to over-estimate the value of this treatment, as common colds once contracted are the cause of much suffering and disability. In a bulletin issued by the Metropolitan Life Insurance Co. one year ago it was stated that in a group of 6700 clerical employees colds occurred at the rate of 420 per thousand for the year with the loss of 6233 days. It is unnecessary to dwell upon the disastrous effect of influenza; upon the problem of handling diphtheria carriers, and the suffering endured from whooping cough. I dare say the time is not far dis-

tant when we will have chlorinated air to breathe when crowded together, as we now have chlorinated water to drink.

CONCLUSIONS

The inhalation of chlorine of a constant concentration for one or more hours has a distinctly curative value in respiratory diseases in which the infecting germs are located on the surface of the mucosa; secondly, that it cuts short the length of disability usually experienced in these diseases so that the patients are, as a rule, at least able to attend to their duties; third, that it has no harmful effects whatsoever, either immediate or later.

PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

If a thorough and perfect understanding of a morbid condition or disease is of any value in its recognition and treatment then surely we should be in a position to be of real service in the management of diphtheria. Prior to the antitoxin era it was a common and much dreaded disease. Medical science while using many drugs was really powerless, though claiming victory as often as the patient recovered through his own immunizing powers.

Today we rightfully boast of a specific for cure, another for prevention, and a test for immunity, as well as bacteriologic and clinical means of recognition. Medical students are taught that the danger lies not in the local lesion solely, but in the remote effects from the circulating toxin. Mothers are told through health agencies and sometimes their physician that it is their duty to protect their offspring. Cities and states maintain laboratories for the recognition of the Klebs Loeffler bacillus. Many states give free of all charges antitoxin to those

affected. Our mortality should be almost nil. But such is not the case. It is estimated at about 10%.

According to the figures of the U. S. P. H. there were 12,705 deaths in this country during 1923. The vast majority of these deaths are avoidable and the fact that they have occurred in evidence of ignorance or carelessness. The ignorance is generally on the part of the parents, while the carelessness must often be attributed to the doctor. Many of us feel free of any guilt, yet it would be an excellent plan to read the very complete contribution of Drs. E. C. Fleichner & E. B. Shaw, so as to learn the pitfalls we must avoid.

This article entitled "Ignorance and Negligence as factors in Deaths from Diphtheria" appears in the Archives of Pediatrics for January, 1925. The authors claim that there are three main groups of factors productive of our excessive mortality Viz:

1. Delayed diagnosis due to ignorance and negligence of parents whereby medi-

cal aid is not summoned sufficiently early.

2. Errors and delays in diagnosis; and
3. Errors and delays in treatment." As a remedy for the first group education is our sole reliance; and that means all mothers and potential mothers should learn the risk that they run when undertaking to treat a child without having a proper knowledge of medicine. Many mothers dose the child for several days either because they glory in playing doctor, or from a desire to escape the doctors bill. They keep hoping that free purgation will cure the ill regardless of what its origin may be. They at heart do not really believe in scientific medicine; but desperately want all that it can do, when after the lapse of time, they see or think they see the approach of death.

After excusing ourselves upon the above plea we must admit that some physicians neglect a throat examination because nothing in the history seems to require it. Others having inspected, through faulty technique fail to see all to be seen, and yet others seeing with the eye do not interpret properly. But many more come to grief through too great reliance on the laboratory. They do not take into consideration that the culture media may be poor or that a negative culture does not rule out the presence of the specific organism in the patient. Delay in treatment is often more deadly than in the case of an acute appendix for clinically and experimentally we have learned that once the soluble toxin has pro-

duced marked degeneration in important structures the administration of excessive units of antitoxin is merely a vain hope. It has been found that "If a rabbit has been inoculated intravenously with 10 lethal doses of diphtheria toxin, his life can be saved in 10 minutes by the intravenous injection of five units of antitoxin. If twenty minutes have elapsed it requires 200 units, in thirty minutes 2,000 units—in sixty minutes 5,000 units, and if 90 minutes have elapsed no amount of antitoxin however large can save the rabbits life. "This means that cases should receive antitoxin early in sufficient dosage to neutralize the toxin. While the intramuscular route is satisfactory in early or average cases, the intravenous has been proven to be many times quicker, and where this is not an easy matter as in little children; intraperitoneal injection is a method of great value and one that is free from danger, provided certain precautions are taken. (E. S. Platou,; Antitoxin in Diphtheria, Arch. Ped. 40:575. Sept., 1923 and J. A. Toomey, et al: Antitoxin Intraperitoneally. Am. J. Dis. Child 29:2. February, 1925). Of course the day will come when the incidence of diphtheria will be greatly lessened, and perhaps the disease will disappear from civilized people through the widespread use of protection inoculations; but in the meanwhile it should be the aim of all medical practitioners to lessen our death rate which is a discredit to us as a nation.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

In the March edition, 1925, Archives of Surgery—Meeker reports 42 cases operated after splanchnic anesthesia.

Local anesthesia is becoming more and more popular and recently in certain fields in the hands of surgeons especially interested, it has become the operation of choice.

Inguinal herniotomy is the most popular single operation performed with this anesthesia. Cervical operations, especially goiter, are perhaps the next most frequent operations, and very recently the trans-sacral nerve block technic has increased the number of surgical procedures being performed upon the pelvic floor and viscera.

In abdominal surgery, however, operators have found a decided limitation in its usefulness, owing to the inaccessibility of the organs.

PARAVERTEBRAL NERVE BLOCK

This type of anesthesia has been thoroughly tried by Braun, Pauchet, Koppis, as well as others, and they have all given it up as impracticable. It is tedious, time consuming and more frequently the anesthesia secured is so incomplete as to necessitate general narcosis. Even when used with any degree of success, whatever, it is necessary to give heavy morphine and scopolomine injections prior to the operation itself. Indeed, the number of injections, 12-24 on each side of the spine make the procedure an extensive operation in itself.

SPLANCHNIC NERVE BLOCK

Koppis and others more recently have attempted "blocking" impulses through the splanchnics by approaching them from be-

hind. The patient assumes a lateral posture with spine arched and the needle being injected through the cocainized skin 7 c. m. to the side from the spine itself, is carried inwards till it strikes the lateral wall of the body of the vertebra, and the point of the needle is then pushed anteriorly along this structure till it tangents its anterior aspect, then through the muscles into the paravertebral tissues. Thirty to fifty c. c. of a 1% procain epinephrin solution are injected—as it is here that the splanchnic nerves lie. This is the so-called Koppis route or technic.

These same nerves have also been approached from the front. Wendling infiltrated the abdominal wall and then with a long needle inserted 1 c. m. below and 5 c. m. to the left of the tip of the ensiform cartilage, he pushed it inwards and backwards through the left lobe of the liver, and the lesser omentum to the anterior aspect of the vertebral column, where he injected 50-80 c. c. of the solution. This blind approach of course, is entirely too hazardous for any conscientious surgeon.

Braun anesthetises the abdominal wall by injecting along the costal and lateral margins of the recti-muscles. He then opens the abdomen in the median line, lifts the liver up, the stomach down and to the left and by inspection, carefully prepares a direct approach to the anterior aspect of the 1st. lumbar vertebra, where he injects first on one side then on the other—30-50 c. c. of the .5% solution.

Of these three technics, the Koppis is probably the safest. Cadover experiments prove that injury to the cava or aorta can hardly take place, provided one hugs the bone with the needle, as it is carried inward.

In the Mayo Clinic 42 laparotomies have been performed using the combined technic of Braun and Koppis. Conclusions were that the intra-abdominal blocking was of no especial benefit as splanchnic injections gave no additional intra-abdominal surgical anesthesia.

The patients operated in this way who gave the most gratifying results were those who were not of nervous temperament, who were flat and thin with long mesenteries and good mental control. Short fat people with acute inflammatory lesions were dismal failures.

It is apparent, therefore, that here as elsewhere, in local anesthesia, the patient must be carefully selected, preliminary morphine narcosis must be resorted to and the tissues must be gently manipulated.

This technique usually drops the blood pressure 30-50 m. m. produces extreme pallor and occasionally nausea and vomiting.

It is impractical, not reliable, unsafe and even when properly placed, the solution does not produce intra-abdominal surgical anesthesia and in the writers' opinion, will never assume a place of any importance in the surgeons armamentarium.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., CHARLESTON, S. C.

"ROLE OF THE EPITHELIAL CELL IN CONJUNCTIVAL AND COR- NEAL INFECTIONS."

Until very recently we have worked on Conjunctival and Corneal infections not really knowing the factors operating in the contest between disease and the resistance of those tissues thereto. Leucocytes, an ever ready help in resisting infection elsewhere have been found to be of no real value in the combating of conjunctival and corneal infections.

Along and interesting article by Dr. H. J. Harvey, in the American Journal of Ophthalmology, December, 1924, page 909, tells the newly found facts in these diseases. Briefly, it is that the bacteria are at first parasitic on the epithelial cells of the conjunctiva and cornea, that in the conjunctiva an enor-

mous proliferation of new and more vital cells occurs and with the stronger cells the tables are to some extent turned. The bacteria are taken into the cells and digested without harm to the cells. The parasitic action of the bacteria on the cells being replaced by the epithelial phagocytosis of the cells upon the bacteria and shortly after this phagocytosis starts the bacteria cease to be found in the discharge. Milk injections hasten the onset of this epithelial phagocytosis.

Vernal Conjunctivitis, Trachoma, and Inclusion Blepharitis have been made understandable by the finding of initial bodies in the cells. These bodies live on the protoplasm of the cells, being a reverse process to epithelial phagocytosis. The article contains much information and should be read in the original.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

THE RELATION OF THE APPENDIX TO THE RIGHT URETER AND KIDNEY

The anatomical relation of the appendix to the right ureter and kidney frequently makes it necessary that careful examination be made to determine the site of the lesion when one of these organs is at fault. Many reports show that a large percentage of operations for suspected chronic appendicitis is done with no improvement in the condition of the patients and that the lesion in subsequent examination has been found elsewhere. One writer reports that on investigation in several thousand cases as many as 73% of those operated on for chronic appendicitis showed no improvement. Buerger, of New York, Barney, of Boston, and others, in a large series of cases state that from 25 per cent to 30 per cent of the patients whom they found to have an obstructive lesions of the kidney and ureter previously had abdominal operations without relief. The most common operation which had been performed was appendectomy. Similar offenses were made in patients with acute symptoms in the lower right abdomen.

Patients presenting classical pictures of disease usually require very little examination to determine the cause; however, text book cases are not very frequent and the attending physician is called upon to make a differential diagnosis.

Cases with a strong suspicion of appendicitis are often complicated by the patient having symptoms referable to the urinary tract. In this event, there is hardly any way to decide whether or not an appendicitis coexists without a careful urological examination. This examination must include catheteriza-

tion of the right ureter. Frequently, the passage of the ureteral catheter will relieve the patient if the lesion is only in the urinary tract; but, if it does not do so, injection of the kidney through the catheter will produce pain by which the patient will know whether or not it is of the same character and in the same location as the one in question. It is a simple and harmless procedure to cystoscope a patient even if operation must finally be done; it entails danger and considerable expense to perform an appendectomy and should not be done unless necessary. There are times, though rare, after every examination has been made, when a positive diagnosis cannot be made. In this event, it would be quite justifiable to remove the appendix. All cases of acute appendicitis should be operated on at once; since there is too much to jeopardize in being too late, when in doubt, after making all necessary examinations, assume that it is the appendix; this doubt will rarely occur if there be cooperation between the internist, general surgeon, and the urologist.

On account of the proximity of the appendix to the right ureter and kidney, such symptoms as frequency, painful and difficult urination, retraction and pain in the right testicle, and other symptoms referable to the urinary tract may accompany a case of appendicitis; however, in cases of pain in the right side, one must differentiate between the following conditions: ureteral and renal calculus, stricture of the ureter, kink of the ureter, pyelitis and ureteritis (the tenderness in ureteritis is usually elicited only with deep pressure over the region of the ureter or appendix and in some instances this pressure will cause pain at the costo-vertebral angle), perinephri-

tic abscess, appendicitis, acute or chronic, etc.

Gladstone and Wakely have studied 3000 cases as to the normal position of the appendix and have tabulated their findings. These cases were observed at operation, autopsies and on the cadavers. They describe six normal positions and give the relative frequency in the 3000 cases as follows: 1. Anterior or pre-ileal, 27 cases or 0.9 per cent; 2. 'Splenic' or post-ileal, 15 cases or 0.5 per cent; 3. 'Pelvic'; on psoas muscle, near or hanging over the brim of the pelvis, 825 cases or 27.25 per cent; 4. Sub-caecal, beneath the 'caput caeci', 56 or 1.86 per cent; 5. Post-caecal and retrocolic, 2076 cases or 69.2 per cent; 6. Ectopic, 1 case or 0.033 per cent.

The appendix may be found at times in front of the right kidney or on its lower border; sometimes, it is adherent to the ure-

ter, and rarely to the urinary bladder.

To summarize, the anatomical relationship of the appendix to the right ureter and kidney frequently causes symptoms of an indefinite type and doubt as to which of these tissues is involved; this may be further complicated in some instances by a possible involvement of all of the tissues under consideration. Cooperation between the internist, general surgeon and the urologist in suspected cases of appendicitis is urgently needed.

REFERENCE

Gladstone, Reginald J. and Wakely, Cecil P. G.: The Relative Frequency of the Various Positions of the Vermiform Appendix: As Ascertained by an Analysis of 3000 Cases: With an Account of its Development. The British Journal of Surgery, Vol. XI, No. 43, page 503, Jan., 1924.

SOCIETY REPORTS

MEDICAL SOCIETY OF SOUTH CAROLINA, (CHARLESTON COUNTY)

PROCEEDINGS OF MEETING, FEB- RUARY 10, 1925

The first semi-monthly meeting of the Medical Society of South Carolina was held at Roper Hospital on the evening of February 10, at 8:30 o'clock. Thirty-eight members were present. Dr. C. P. Aimar, President, presided. After a short business meeting lasting half an hour, the Scientific Program was taken up. A recent ruling passed by the Society requires that the business meeting shall begin at 8:30 and the scientific program at 9:00 P. M. This rule is strictly enforced, and it has been found most satisfactory, in that it places the scientific portion of the meeting foremost. If business is not completed by the time the scientific session is called, it is taken up at the completion of the medical program.

The first number on the program was a surgical case report on "Traumatic Epilepsy" by Dr. A. E. Baker. A brief resume of this report follows:

"This case of Brain Surgery is reported because of its many interesting features and to emphasize the advancement of the present day technique of brain surgery.

"This patient, a white man, age 32 years, received a blow on right side of head, June 1911. Became instantly unconscious; was trephined an hour after accident by his local physician; regained consciousness in 35 hours; and remained fairly well, though unable to work until the following November, when suddenly convulsions set in. He had twenty-three in one night. He was then referred to one of our best surgeons in Columbia, who operated, laying back a bone flap, size 3 x 3 1-2 inches, over the

seat of injury. No history of what was found. The convulsions were relieved, but patient had headaches and vomiting spells at times. He returned to Columbia, November, 1912, and was operated upon. In February, 1913, he was again operated upon by the same surgeon. At this time the bony flap was wired to the adjacent bone, evidently because of no union. The following fall his epileptic convulsions returned, and in February, 1914, he was referred to me, at which time he was having several epileptic convulsions every day. His mental condition was cloudy and blurred, to the extent that he was not aware of being under my care until after I operated. The operation consisted in removing the bone flap, no union having taken place with the adjacent bone. This large area of bone was pressing upon the brain. Firm adhesions existed to the dura which were severed. At that time the method of closing such bony defects of the skull was the use of celluloid plates or metal plates of aluminum and silver, but now we know that transplant of bone is the recognized method, taken from the tibia, rib, and scapula. The celluloid plate was selected and placed over the edges of the bony defect under the scalp, which protected the brain substance and prevented the scalp from coming in contact and causing more adhesions. He improved rapidly after the operation. In two days his mental condition became normal, free from convulsions or brain symptoms. In three months the celluloid plate ulcerated through the scalp at one point. The plate was made smaller, but still it gave scalp trouble, and finally, after six months, it was removed and the scalp permitted to rest upon the dura. Patient remained in the best of health for nine years. A few months ago suspicious symptoms of previous attacks occurred in one arm, Jacksonian Type. I refer-

red him to Dr. Charles Frasier of the University of Pennsylvania. He operated by dissecting portion of the flap from the brain, with instructions to the patient to return in a few months to complete the operation, which was to be performed in two stages. Before time for him to return the same symptoms reappeared, and patient returned immediately. Dr. Frasier changed his method of procedure and is now transplanting bone taken from his ribs to fill this defect. The outlook is most favorable for a permanent cure."

Under *Medical Case Report*, Dr. Robert Wilson, reported a case of acromegaly. Dr. Wilson stated that this patient had been admitted to the Hospital "only this afternoon and as yet has not been carefully worked out," but that he brought the case before the Society, as the condition was rather rare and he felt that the patient might leave before the members had an opportunity of seeing him. The patient was a large well-muscled negro adult, about middle-age, who gave a history of "headaches" beginning two years ago. These headaches occurred most frequently at night. Accompanying the headaches he noted an increased frequency and output of urine. The headaches were not constant. The patient stated that he was always a large man and did not know exactly when he began to grow larger. His attention was called to himself when one of his friends told him that he thought he was getting "uglier and uglier." Except for the headaches and frequent urination, he feels well. The outstanding physical findings exhibited by the patient were about as follows: Large head; marked prominence of frontal and orbital ridges; prominent malars; very large and prominent chin; hands and feet exceedingly large. Dr. Wilson requested that Dr. Taft exhibit X-Ray pictures of skull and hands. Dr. B. R. Taft showed these pictures, which demonstrated the characteristic X-Ray features of this disease. In the pictures of the skull it was pointed out that the sella was larger than normal and there was an absence

of clinoid processes. The report was discussed by Drs. Chamberlain and Dieterich, Dr. Wilson closing.

The paper of the evening was read by Dr. W. H. Frampton on "Chlorine Gas in the Treatment of Diseases of the Respiratory Tract." (This paper appears elsewhere in the Journal). This subject was very thoroughly discussed. Dr. A. E. Baker, Jr., who was using the method to some extent, commented upon its beneficial effects. Some of the others, in discussing it, were very doubtful of its utility. One member condemned it, stating that he thought it on a par with the Abram's Method. Dr. Frampton, in closing, emphasized the value of the treatment in superficial infection of the respiratory tract. He stated that it was not a panacea, but that it was an undoubted benefit in some cases of acute bronchial disease.

W. ATMAR SMITH, Secretary.

MEDICAL MEET AT ORANGEBURG

Special to The State.

Orangenburg, Feb., 14.—The regular monthly meeting of the Orangenburg County Medical society was held in this city Thursday, February 12, at noon at the city hall, there being 25 physicians from the city and county present who took part in a most interesting meeting.

The local society was honored with several distinguished visitors, among them being Dr. Lesesne Smith of Spartanburg and Saluda, distinguished baby specialist, and Dr. William Weston of Columbia, another well known baby specialist.

Dr. Smith read a paper on practical points of infant feeding, which was interesting and highly educational. Dr. Weston read a paper on infant feeding, being an excellent lecture on that vital subject. Dr. F. M. Routh of Columbia, who was not on the program, but also present, made a short talk on laboratory cases that he had observed and this too was received with interest by the doctors present.

During the business session the local society bought a \$50 bond which is to help the tubercular association in its fight on this dreaded disease. Following the business session all of those present went to the Orangeburg hotel, where a luncheon was served. The retiring officers of the society are: Dr. Vance Brabham of Orangeburg, president; M. L. Nelson of North, vice-president, and G. M. Truluck of Orangeburg, secretary.

The newly elected officers for 1925 are: L. C. Shecut of Orangeburg, president; C. I. Goodwin of Holly Hill, vice-president; and G. M. Truluck of Orangeburg, secretary. The local association intends to send a large representation to the state medical meeting in Spartanburg in April and Vance Brabham of this city and H. W. Koopman of Elloree were named as delegates and C. A. Mobley and T. M. Stuckey as alternates.

There was no meeting held in January on account of the condition of the roads, but the members plan to meet regularly each month, as they find that great good results from their deliberations. It is thought that the local organization is one of the liveliest in the state.

OCONEE COUNTY MEDICAL SOCIETY

The Oconee County Medical Society met at Seneca, February 25, 1925.

In the Absence of the President and Vice-President, Dr. W. C. Mayes of Fair Play presided. The following members answered to roll call: Drs. J. S. Stribling, E. C. Doyle, W. C. Marett, J. W. Bell, B. F. Sloan, T. G. Hall and E. A. Hines. The minutes of the last meeting were read and approved.

On motion the regular program was dispensed with to receive the official visit of Dr. J. R. Young Councilor of the Fourth

District. Dr. Young expressed his pleasure that the Oconee Society had long been noted as a model working body and rarely needing the assistance of a Councilor from an official standpoint. Dr. Young reported a number of interesting surgical cases and requested a round table discussion by the members present. Focal infections were also discussed by the Society and several cases offered as evidence that removal of infected tonsils and teeth often resulted in recovery of the patients.

There being no further business the Society adjourned to meet at the call of the President.

The Woman's Auxiliary organized a year ago functions admirably. At a meeting held at Seneca on February 25, 1925 the members voted to join the County and State Federation of Woman's Clubs.

E. A. Hines, M. D., Secretary.

RIDGE MEDICAL ASSOCIATION

The Ridge Medical Association met in Dr. W. P. Timmermans office Monday night February 16th. The subjects of the juniors meeting were briefly discussed. The essayist of the evening was unavoidably prevented from attending—his subject was continued for the next meeting. A general and interesting discussion took place among the members on the "Diseases of the Heart." This organization adjourned to meet the 3rd Monday in March. Following this Dr. James Crosson, President of Lexington County Medical Association called that body to order. A short business session was held, after which this body adjourned to meet in Lexington in April. Dr. W. P. Timmerman was elected a delegate to the State Medical Association, and Dr. A. L. Ballenger, alternate. The local medical association then entertained the county association and the Woman's Auxiliary at a delightful supper.

WOMAN'S AUXILIARY

The wives of the Doctors met Monday night in Dr. W. P. Timmermans office. These ladies organized the Woman's Auxiliary of the Lexington County Medical Association. The following officers were elected: President, Mrs. W. P. Timmerman, Batesburg; Vice-President, Mrs. J. H. Matthias, Lexington; Secretary and Treasurer, Mrs. D. M. Crosson, Leesville. The next meeting of the Auxiliary will be held on the third Tuesday in March with Mesdames W. P. Timmerman, W. T. Gibson and A. L. Ballinger as hostesses.

MEDICAL SOCIETY OF SOUTH CAROLINA (Charleston County)

PROCEEDINGS OF MEETING FEBRUARY 24, 1925

The second semi-monthly meeting of the Medical Society of South Carolina was held at Roper Hospital at 8:30 P. M. Dr. T. J. McCartney of the Mayo Clinic was introduced to the Society by Dr. F. H. Dieterich. Dr. McCartney made a delightful and illuminating address on "Gastric Ulcer and Carcinoma." He showed lantern slides depicting various phases of these conditions. The paper of the evening was read by Dr. J. H. Cannon on "The Annual Physical Examination." This paper was excellently received and created considerable discussion.

After the scientific program was completed, Dr. T. J. McCartney was elected an Honorary Member of the Medical Society of South Carolina. The first Honorary Member to be elected by the Society was Dr. Benjamin Rush. Surgeon General Gorgas became an Honorary Member about seven or eight years ago.

Before adjournment, a short reception was held in honor of Dr. McCartney, at which a delightful collation was served.

W. Atmar Smith, M. D., Secretary.

MEMBERS OF BAMBERG COUNTY MEDICAL SOCIETY

J. W. Wyman, Denmark, S. C.; J. S. Mathias, Denmark, S. C.; D. K. Briggs, Blackville, S. C.; A. S. Weekley, Bamberg, S. C.; Robt. Black, Bamberg, S. C.; H. J. Stuckey, Bamberg, S. C.; L. A. Hartzog, Olar, S. C.; J. R. McCormack, Olar, S. C.; J. L. Copeland, Erhardt, S. C.

MEMBERS OF COLLETON COUNTY MEDICAL SOCIETY

Riddick Ackerman, Walterboro, S. C.; L. M. Stokes, Walterboro, S. C.; S. L. Turner, Walterboro, S. C.; J. C. VonLehe, Walterboro, S. C.; E. S. Thompson, Smoaks, S. C.; H. M. Carter, Smoaks, S. C.; W. M. Moorer, Lodge, S. C.

MEMBERS OF HORRY COUNTY MEDICAL SOCIETY

J. K. Staley, Conway, S. C.; Jas. A. Stone, Little River, S. C.; J. A. Norton, Conway, S. C.

MEMBERS OF KERSHAW COUNTY MEDICAL SOCIETY

W. D. Griggsby, Blaney, S. C.; S. C. Brasington, Camden, S. C.; W. R. Clyburn, Camden, S. C.; J. W. Corbett, Camden, S. C.; W. J. Dunn, Camden, S. C.; J. T. Hay, Boykins, S. C.; A. W. Humphries, Camden, S. C.; S. M. McCaskill, Camden, S. C.; J. W. A. Sanders, Lugoff, S. C.; E. Z. Truesdel, Bethune, S. C.; C. A. West, Camden, S. C.; S. C. Zemp, Camden, S. C.

MEMBERS OF ORANGEBURG COUNTY MEDICAL SOCIETY

J. L. B. Gilmore, (Honorary), Holly Hill, S. C.; C. I. Goodwin, Holly Hill, S. C.; C. I. Green, Orangeburg, S. C.; Vance Brabham, Orangeburg, S. C.; L. C. Shecut, Orangeburg, S. C.; G. H. Walter, Orangeburg, S. C.; H. P. Moore, Orangeburg,

S. C.; H. T. Schiffley, Orangeburg, S. C.; T. A. Jeffords, Orangeburg, S. C.; G. M. Truluck, Orangeburg, S. C.; C. A. Mobley, Orangeburg, S. C.; E. J. Wannamaker, Orangeburg, S. C.; G. C. Bolin, Orangeburg, S. C.; A. W. Browning, Elloree, S. C.; H. W. Koopman, Elloree, S. C.; P. L. Felder, Elloree, S. C.; M. L. Nelson, North, S. C.; J. F. Wannamaker, Vance, S. C.; T. M. Stuckey, Cope, S. C.; A. L. Black, Bowman, S. C.

W. W. Boyd, Spartanburg, S. C.; Cecil Rigby, Spartanburg, S. C.; D. L. Smith, Spartanburg, S. C.; Hallie Clark Rigby, Spartanburg, S. C.; F. S. Westmoreland, Spartanburg, S. C.; W. B. Lyles, Spartanburg, S. C.; Baxter Haynes, Spartanburg, S. C.; C. A. Bailey, Spartanburg, S. C.; Robt. D. Hill, Spartanburg, S. C.; Martin Crook, Spartanburg, S. C.; A. M. Nelson, Spartanburg, S. C.; A. R. Fike, Spartanburg, S. C.; Herbert Smith, Spartanburg, S. C.

MEMBERS OF SPARTANBURG COUNTY MEDICAL SOCIETY

(To be continued)

O. W. Leonard, Spartanburg, S. C.; Jas. W. Allen, Spartanburg, S. C.; O. B. Wilson, Spartanburg, S. C.; James L. Jeffries, Spartanburg, S. C.; S. A. Wideman, Spartanburg, S. C.; Harry Heinitsh, Jr., Spartanburg, S. C.; J. J. Lindsay, Spartanburg, S. C.; O. C. Bennett, Spartanburg, S. C.; William Zimmerman, Spartanburg, S. C.; W. A. Wallace, Spartanburg, S. C.;

MEMBERS OF UNION COUNTY MEDICAL SOCIETY

W. D. Hope, Lockhart, S. C.; Geo. F. Moseley, Union, S. C.; H. T. Hames, Jonesville, S. C.; Theo. Maddox, Union, S. C.; O. L. P. Jackson, Union, S. C.; J. G. Going, Union, S. C.; S. G. Saratt, Union, S. C.; J. T. Jeter, Santuc, S. C.; P. K. Switzer, Union, S. C.; A. P. McElroy, Union, S. C.; D. H. Montgomery, Union, S. C.; F. P. Sally, Union, S. C.; R. R. Berry, Union, S. C.

NEWS ITEMS

The following physicians received the Fellowship of the American College of Physicians at the Washington D. C. Convocation, March 9th to 14th; Dr. Robert Wilson of Charleston, Dr. J. H. Cannon of Charleston, and Dr. E. A. Hines of Seneca. Dr. Wilson was elected to membership on the Board of Governors of the College.

The American College of Physicians was organized nine years ago and has a membership of about one thousand, two hundred Fellowships being conferred at the recent meeting on physicians from the United States and Canada.

The general aims of the College are somewhat similar in the domain of Internal Medicine and the allied specialties to the American College of Surgeons.

In the immediate future there will be a close cooperation between the two Colleges. Dr. Charles H. Mayo, President of the Col-

lege of Surgeons, was present at this meeting and outlined the benefits to accrue from such joint interests. Representatives of the College of Physicians, it is expected will appear on the programs, regional, and otherwise of the College of Surgeons in the future and there will be, it is understood, a close affiliation of the two institutions in the matter of hospital standardization.

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of the

South Carolina Medical Association

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EDGAR A. HINES, M. D. F. A. C. P., Editor-in-Chief, Seneca, S. C.

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EDITORIAL

THE MARY BLACK CLINIC

The growth and development of the Mary Black Clinic of Spartanburg, South Carolina has been nothing less than phenomenal. This clinic, since its inception, has been recognized as an institution, far above the average and has always enjoyed a brisk patronage. In 1920, this clinic was founded in a small building on North Dean street, by Doctors H. R. and Sam O. Black.

Soon outgrowing their quarters the clinic was moved to a suite in the Andrews Law building the following year. Here, a supply of radium was obtained, the first ever gotten in this city and a complete clinical laboratory for diagnostic purposes was developed. Unusual success greeted the efforts of the two physicians and soon, six months to be exact, they found their quarters too small for their practice.

In 1922 a private residence and a large piece of property at the corner of East Main street and Oakland avenue was secured and the building converted into a hospital. The supply of radium was doubled and a specialty made of cancer cases. The Mary Black Clinic has treated some 1,000 cancer cases. In this building a complete X-Ray department for diagnostic, fluoroscopic and treatment purposes was installed.

It may be well to remark here that the Mary Black Clinic was named in honor of Mrs. H. R. Black, who, before marriage, was the daughter of Col. Sam Snody, a plantation owner who lived between Welford and Inman.

During 1922, the staff of the hospital was increased by the addition of Dr. H. S. Black. About the middle of 1923, it was seen that a new building would be needed to take care of the ever increasing patronage. Accordingly, plans were submitted by nationally known



THE MARY BLACK (Clinic)

architects and the contract let to a well known engineering firm. The new building has recently been opened.

It is a magnificent edifice, a three story brick building complete in every detail. The first floor houses the doctors' offices, library and classrooms, X-Ray, radium, clinical and pathological laboratories and the diagnosis and clinical departments. On the second and third floors, the patients are accommodated. Each patient's room is well furnished with the most modern equipment. About 40 patients can be taken care of in this building, though, if necessary, this number may be increased. The hospital employs a full time laboratory technician. Twenty nurses are on the staff, most of them in training. They occupy the building formerly used by the clinic, adjoining the new building and which has been converted into a nurses' home. The new building is equipped with three large solariums.

Dr. Paul Black, is in charge of the X-Ray department of the hospital. The building con-

tains two large operating rooms and one smaller emergency operating room. The equipment is excellent. The cost of building and present equipment totals more than \$250,000.

SPARTANBURG COUNTY GENERAL HOSPITAL

Spartanburg county is particularly fortunate in having one of the best equipped and regulated hospitals in the south in the form of the Spartanburg County General Hospital. This magnificent building was formally opened on August 21, 1921 and by general reputation, has become known as one of the very best hospitals in this section.

The hospital was erected at a cost of \$375,000 which includes its modern equipment. Located on one of the highest elevations in the city, which permits an exceptionally beautiful and picturesque view of the surrounding country, the building presents an imposing appear-



THE SPARTANBURG COUNTY (General Hospital)

ance. It is four stories in height, built of brick and granite and the hospital grounds cover an area of 22 acres.

The hospital is rated as a '98 bed hospital,' though when the occasion demands, this amount may be appreciably increased. "The affairs of the institution are governed by a board of trustees which is composed of nine persons, residents of the county. Dr. L. L. Williams is the superintendent directly in charge of the hospital and has acted in this capacity since November 21, 1924.

A recent enlargement in the form of buildings was the erection of a nurses' new home. This edifice, completely fireproof and modern in every detail was opened the latter part of 1924. At present, the building houses 36 nurses some in training and some graduates. The nurses' training course is of three years duration. The superintendent's home, located nearby, is owned by the hospital.

During 1924, records show, 1850 patients were given medical and surgical attention in

the Spartanburg General. In the institution are two completely furnished operating rooms, a maternity ward, children's ward and charity ward. On the first floor is located the emergency hospital and an emergency operating room.

Prominent among the splendid equipment of the hospital is a 200,000 volt X-Ray machine which was recently installed. The hospital has also a well equipped laboratory, library and cafeteria.

On every floor is to be found a well furnished solarium and diet kitchen, complete in every detail.

The Spartanburg County General Hospital was officially born with the consolidation of three hospitals, the Steedley Hospital, the Spartanburg Hospital and the Good Samaritan Hospital. All three of the institutions were comparatively small and were not sufficiently equipped to give the necessary attention to unusually malignant cases.

This building is a credit to the county and



THE NURSES HOME (Spartanburg County General Hospital)

citizenry and has, since its inception, been functioning according to plans. The Spartanburg General serves the city and county.

TO OUR VISITORS

The people of Spartanburg, through the Spartanburg Chamber of Commerce, bid you welcome to the City of Success. We welcome you to a city of friendliness, beauty and opportunity.

We want you to feel at home during your stay here and whenever you have occasion to again visit Spartanburg.

While you are here, we want you to look about and see just why we are so proud of this city. We feel that this, veritably, is a land of plenty, certainly we are fortunate to be living in this era of progression and opportunity.

Probably no other city in the entire country has the advantages, present and future, which favor Spartanburg, South Carolina. Ideally situated, populated by an industrious, thrifty

and intelligent people, possessing a wonderful climate, strategically located with a view to manufacturing and distributing, and at the present time, the scene of a tremendous industrial and home building activity, Spartanburg is experiencing unusually good conditions. The eyes of the entire south are now directed on this community. Spartanburg's recent progress and future development planned—some of it now underway—has even commanded the attention of the whole country.

Located at the top of the Piedmont Plateau, within sight of the majestic Blue Ridge mountains, and advantageously situated where the New York-Atlanta main lines, both rail and highway, cross the routes that connect Charleston and the sea with Asheville and the middle north, Spartanburg is one of the fastest growing business and social centers in the south.

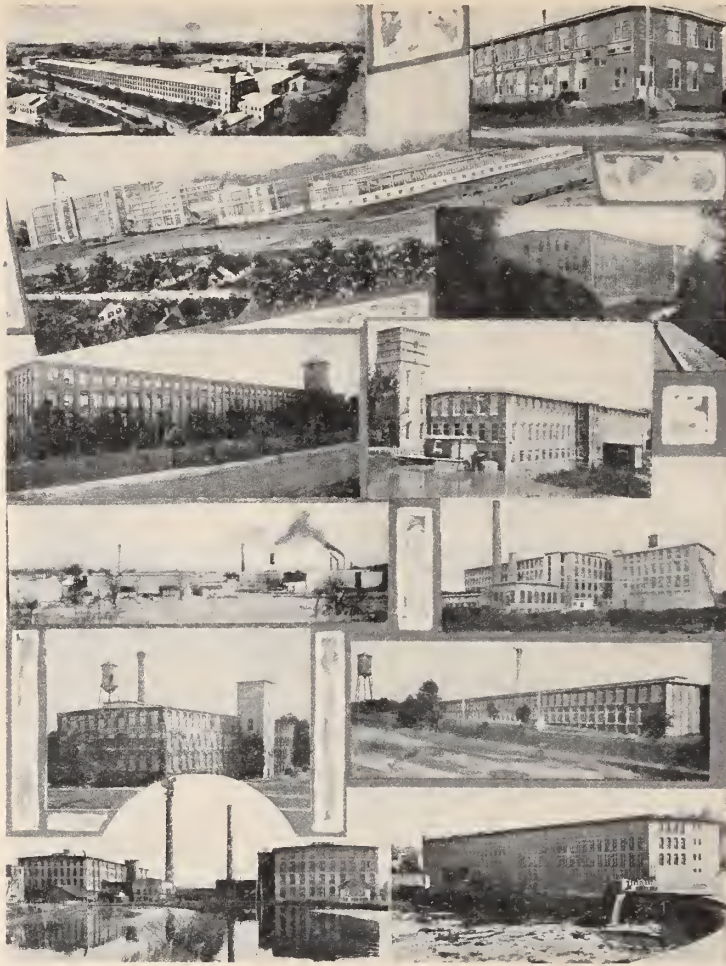
Before delving into present conditions, a few words on the origin of the section follow: Spartanburg County was settled in 1775 by sturdy God-fearing and law abiding Scotch-

Spartanburg has fine hotels,—here are three of them. The Gresham, top—the Cleveland, center and the Franklin, bottom.



Irish and English colonists. Their hardiness and perseverance in the War of the Revolution won for them the name of "Spartans." So was it at all unusual that when the county seat was located in 1787, it was named in their honor—"Spartanburg?"

But what a change in condition time has wrought. Then a sparsely settled section, with thickly wooded lowlands and highlands, Indian trails and paths linking the outlying districts, settlers in little log cabins, chinked with clay, earning at the best a poor living, but



A FEW OF SPARTANBURG'S TEXTILE MILLS

happy and contented in the knowledge that they were free men, the yoke of old England, no more about their necks.

And now the scene shifts to a modern community, with a county population of more than 110,000, wasted woodlands converted into highly productive lands, a network of hard-surfaced roads and paved highways linking all points in the county with outside sections. huge mills belching forth clouds of smoke—tremendous activity is seen on every side—the cities and the smaller towns all present a hustling and bustling spirit—new mills, factories and sky-scrappers all in process of erection. And more than this,—the plans for the future assure even the most credulous person that his confidence and faith in this section will not be confounded.

Including suburbs, the city of Spartanburg

has a population of 42,000. The city is 875 feet above sea-level, possesses an exceptionally mild climate and is supplied with an abundance of pure water. Spartanburg is the largest cotton manufacturing, shipping and distributing section in the entire south. It ranks first in the state, second in the south and sixth in the United States in its textile industries. Spartanburg has thirty-three (33) textile plants operating 950,000 spindles, 25,000 looms, employing more than 14,000 people and have a combined annual payroll of \$6,000,000.

While cotton is the main product of this section—and a great part of its industries are devoted to the manufacturing of this article, Spartanburg has large lumber and fertilizer plants, planing mills, cotton seed oil mills, flour and grist mills, machine shops and foundries, light and power plants, bakeries and candy,



MORGAN SQUARE (Spartanburg, S. C.)

drug, harness and leather, cement pipe and cigar industries. The amount invested in manufacturing in this section totals \$48,000,000.

Spartanburg is served by five railroads radiating in six directions. Seven motor bus lines link the city with the surrounding country.

Agriculturally, there is no better section in the country adapted to raising various kinds of produce, than this. Spartanburg produced annually about \$16,000,000 worth of crops. Spartanburg leads the state in the production of cotton and corn. This section offers golden opportunities to those who would grow peaches, apples or grapes, the soil being especially adapted to the raising of these fruits. Poultry raising and dairy farming are coming to the front as highly remunerative occupations.

Spartanburg is the southern home of Lockwood, Green and Co., nationally known engineers and architects. The new \$5,000,000 Pacific Mills and Bleachery, the largest in the south and representing but a single unit of a plant which will ultimately cost \$20,000,000 is located at Lyman, Spartanburg county.

The Southern Railway Repair shops, recently completed at Hayne at a cost \$3,000,000, will employ 2,000 skilled workmen and have an annual payroll of \$2,000,000. Workmen and their families will swell the population of Spartanburg by more than 5,000.

Extension of the city water-works by the erection and installation of a new water supply

plant which will cost \$1,350,000, is now under-way. On all sides, one may see great industry. Here, the erection of a tremendous sky-scraper which at completion will be a modern office and theatre building, there, modern store buildings, and industrial plants and mills and hundreds of homes from the smallest bungalow to a palatial mansion, are in process of erection.

The Montgomery office and theatre building, now in the stages of completion, is said by architects to be one of the most modern in the entire south. The Southern Railway is at present, constructing a belt line around the city. This is a tremendous project and will be completed, it is believed, in August, this year. The C. C. and O. (L. and N.) and A. C. L. will spend more than \$750,000 in a gigantic tunneling project under the city.

Spartanburg has a commission form of government—acknowledged by many civic leaders as the best. The unusual health record of Spartanburg, its fine protection offered by the police and fire departments, streets, utilities and conveniences of life, rank with any city of similar size in the country. And best of all, is the knowledge that the present development is being made with an eye to the future.

Spartanburg's schools, parks, playgrounds, churches, libraries, theatres, newspapers and moral atmosphere do not suffer one whit by comparison with any other section. Wide, smoothly paved streets, with a profusion of beautiful shade trees, wonderful residential sections and above all, that truly "homelike"

atmosphere which one meets on all sides, tend to make Spartanburg an ideal community.

Wofford College for men and Converse College for women, two well known institutions of learning are located here. Other educational centers here include Textile Industrial Institute, State School for the Deaf and Blind and Hastoc School for Boys. The city has one of the best public school systems in the country. The city at present, is spending \$210,000 in developing the school facilities. The \$300,000. Spartanburg General Hospital and the \$250,000 Mary Black Clinic, two splendid medical institutions, serve the city and county.

Famous Blue Ridge resorts are within an hour or two of riding over hardsurfaced roads, Tryon, Saluda, Kanuga, Brevard, Hendersonville, Pisgah Forest and Chimney Rock. And a little further on are Biltmore, Asheville, Mount Mitchell and Black Mountain.

This section is also rich in history. Twelve miles south of the city, is Glenn Springs, visited for a century for its health giving waters. Twelve miles east is the famous Cowpens battle ground where Morgan defeated the Bloody Tarleton. Northwest is King's Mountain where Colonial troops turned the British and sent them on their way toward final surrender at Yorktown.

PHILIP G. CLARKE,
Chamber of Commerce,
Spartanburg, S. C.

ENTERTAINMENTS

The Committee on Entertainment will accede to the general sentiment of the Association to so limit the scope of the entertainments that the regular scientific program will not be interfered with. Aside from private dinners, automobile trips, and other forms of entertainment, there will be a reception and dance at the Cleveland Hotel, Wednesday evening, April 22nd. Such a function will not only provide for the members to meet each other in a social way but will enable the visitors to get acquainted with the citizens of Spartanburg.

CLINICS

The Journal urges upon the members to make every effort to attend the clinics put on for the first time by the State Association outside of the city of Charleston where the Medical College is located. The officers are very anxious to have these clinics succeed from every point of view in order that the precedent may be followed anywhere in the state wherever hospitals are located. It may be a little trouble to get up early in the morning and attend the clinics but there is every indication that the profession of Spartanburg will make it well worth while to do so. Spartanburg has some of the finest and best equipped hospitals in the state and therefore the clinics will be instructive and supplement in a practical way the paper reading programs to follow.

THE WOMAN'S AUXILIARY

The ladies have always attended the State Medical Association, and in recent years in increasing numbers. Spartanburg is peculiarly attractive to the wives and daughters of the physicians attending the convention. The recently organized Auxiliary of the Spartanburg County Medical Society has a very active membership, all eager to entertain the visiting ladies and make their stay in Spartanburg pleasant and profitable. The program promises to be of very great interest to the wives of the doctors, who may be fortunate enough to attend the meeting.

THE ALUMNI LUNCHEON

Class reunions have been encouraged by the officers of the State Medical Association and many have been held at various times. The Alumni Association of the Medical College of the State of South Carolina has become a very important feature of the annual meeting of the State Association.

The Alumni of all other medical schools are most cordially invited to this luncheon. It will be given on Wednesday, April 22nd at the Cleveland Hotel.

These occasions have been very enjoyable in the past and practically every physician in the state whether a graduate of the Medical College of the State of South Carolina or not is urged to cooperate with the Alumni Association in further efforts toward a greater support by the state and philanthropists of this time honored institution.

THE PERIODIC HEALTH EXAMINATION

The State Association launches a pioneer movement for this section of the country on a large scale at the Spartanburg meeting. It is hoped to so impress the members of the Association with the importance of the health examination movement now spreading rapidly that from the demonstration the plan will be put into effect throughout this state. Members are urged to submit themselves for a personal examination and to carry the message back home to their clientele. This is one of the most promising fields of preventive medicine and the doctor should begin with himself and his own family.

TWENTIETH ANNIVERSARY OF THE JOURNAL

With this issue the Journal comes out in a new dress to celebrate its twentieth anniversary. At the Greenville meeting in 1905 the House of Delegates authorized the publication of an official Journal to be known as the Journal of the South Carolina Medical Association. Dr. Robert Wilson of Charleston, the retiring president, was the first Editor-in-Chief. To Dr. Wilson belongs the credit for crystallizing the idea of Dr. W. P. Porcher in his fiftieth anniversary address as president of the Association seven years previous. Our Journal then was one of the early state journals published after the great reorganization of the profession under the auspices of the American Medical Association. It is remark-

able that so small a membership, less than one thousand has been able to maintain such a creditable Journal for two decades. This has been due to the loyal support of both members and consistent advertisers. The editors have been representative men of the highest professional attainments. Following Dr. Wilson's resignation other editors have been, Dr. F. H. McLeod of Florence, Dr. J. W. Jervy of Greenville and Dr. J. C. Sosnowski formerly of Charleston. The Secretary has been Editor-in-Chief since January, 1912. The Associate Staff have always been, as at present, physicians of marked ability. From time to time scientific articles published in the Journal have been quoted in other Journals in many parts of the world. Perhaps the most notable of these were the original investigations of pellagra under the inspiration of the late Dr. J. W. Babcock and the late Dr. J. J. Watson and others. South Carolina was the mecca for students of pellagra from all parts of the civilized world and the Journal of the South Carolina Medical Association has been a very important factor in disseminating the knowledge of the disease as witnessed by many observers in South Carolina. The Journal has unfailingly supported the Medical College of the State of South Carolina in its onward march towards the high standard now attained by this splendid institution.

The Journal has promoted the great progress made by the State Board of Health, which has forged to the front as one of the foremost health boards in the country.

The Journal has upheld the State Board of Medical Examiners and all of the efforts made to enact wise medical practice laws.

Last but not least the Journal has endeavored to keep constantly before the profession the benefits to be derived from a properly sustained and supported medical organization.

It will be noted that the Journal is considerably enlarged with this issue and therefore is not only more attractive to its readers but offers a much better medium for advertisers.

HOUSE OF DELEGATES

Cleveland Hotel

Tuesday, April 21, 8:00 P. M.

The General Order will be as follows:

Committee on Credentials will convene at 7:30 p. m.

Delegates should obtain credentials before leaving home.

Call to order by the President at 8:00 p. m.

Report of the Committee on Credentials.

Remarks by the President.

Report of the Secretary-Treasurer.

Report of the Councilors, Dr. S. E. Harmon, Chairman.

Report of Scientific Committee, Dr. F. H. Dieterich, Chairman.

Report of Committee on Public Policy and Legislation, Dr. M. H. Wyman, Chairman.

Report of the State Board of Health, Dr. Robert Wilson, Chairman.

Report of Committee on Health and Public Instruction, Dr. R. J. Beachley, Chairman.

Report of State Board of Medical Examiners, Dr. A. E. Boozer, Secretary.

Report of Delegate to the American Medical Association.

Report of Committee on Prevention of Venereal Diseases, Dr. Gideon Timberlake, Chairman.

Report of Committee on Efficiency and Standardization of Hospitals, Dr. F. H. McLeod, Chairman.

Report of Committee on Constitution and By-Laws, Dr. E. A. Hines, Chairman.

Report of Committee on Military Affairs, Dr. C. B. Earle, Chairman.

Report of Special Committee on:

Illegal Practitioners, Dr. F. H. McLeod, Chairman.

Report of Committee on Necrology, Dr. J. H. Taylor.

Introduction of New Business.

Miscellaneous Business.

Election of Officers.

PROVISIONAL PROGRAM

Spartanburg Meeting, April 21, 22, 23, 1925

SCIENTIFIC SESSION

Wednesday, April 22, 1925, 9:30 A. M.

Meeting Place

Cleveland Hotel

Call to order by the President.

Invocation.

Address of Welcome on behalf of the City by His Honor the Mayor.

Address of Welcome on behalf of the Spartanburg County Medical Society by Dr. W. A. Wallace, President.

Response by Dr. Frank Lander, of Williamston.

President's Address—Dr. D. M. Crosson, Leesville.

ADDRESS:

"Endocarditis." By Dr. Stewart Roberts, Atlanta, Ga., President Southern Medical Association.

ADDRESS:

"Acute Pancreatitis." By Dr. Irvin Abel, Louisville, Kentucky, President Southern Surgical and Gynecological Association.

SYMPOSIUM ON CANCER, APRIL 22.

1. The History of Cancer.

By Dr. J. H. Taylor, Columbia, S. C.

2. Grading Tumor Malignancy.

By Dr. F. H. Dieterich, Charleston, S. C.

3. The Surgical Treatment of Cancer.

By Dr. LeGrand Guerry, Columbia, S. C.

4. X-Ray and Radium Treatment of Cancer.

By Drs. R. W. Gibbes and Floyd Rogers, Columbia, S. C.

5. Cancer As a State Board of Health Problem.

By Dr. James A. Hayne, State Health Officer, Columbia, S. C.

6. Cancer From the General Practitioner's Standpoint.

By Dr. Robert Wilson, Charleston, S. C. The Periodic Health Examination.

By Drs. J. H. Cannon and J. Van de Erve, Charleston, S. C.

Psychology in Its Relation to Physiology.

By Dr. Sophia Brunson, Sumter, S. C.

Calcification of the Renal Pelvis, With Report of a Case, and Slides.

- By Dr. James J. Ravenel, Charleston, S. C.
- Some Pertinent Points in Venereal Practice.
By Dr. Marion H. Wyman, Columbia, S. C.
- Intravenous Urotropin in Post-Operative Urinary Retention. With a Report of a Series of Cases, With and Without the Above Treatment.
By Dr. A. E. Baker, Jr., Charleston, S. C.
- Some Observations Concerning Focal Infections.
By Dr. James S. Fouche, Columbia, S. C.
- Intussusception in Children.
By Dr. Geo. A. Bunch, Columbia, S. C.
- Roentgen Diagnosis in Abdominal Pathology, With Lantern Slides.
By Dr. Arthur Shaw, Columbia, S. C.
- Puerperal Infection.
By Dr. Lester A. Wilson, Charleston, S. C.
- The Meningitides.
By Dr. R. M. Pollitzer, Greenville, S. C.
- Bronchial Asthma.
By Dr. O. B. Mayer, Columbia, S. C.
- Fibromyoma Complicating Labor.
By Dr. Robert Seibels, Columbia, S. C.
- Some Observations in Urological Diagnosis, With Lantern Slide Demonstrations.
By Dr. W. H. Barron, Columbia, S. C.
- Tonsillectomy in Adults, Why and How.
By Dr. Edward F. Parker, Charleston, S. C.
- SYMPOSIUM ON HOOK-WORM DISEASE
- Thursday, April 23
1. The History of Uncinariasis.
By Dr. Hugh Smith, Greenville, S. C.
 2. The Pathology of Uncinariasis.
By Dr. F. M. Routh, Columbia, S. C.
 3. The Prevention of Uncinariasis.
By Dr. Leon Banov, Charleston, S. C.
 4. Uncinariasis In its Relation to Public Health.
By Dr. L. A. Riser, Director of Rural Sanitation, Columbia, S. C.
 5. Treatment of Uncinariasis.
By Dr. L. W. Martin, Walterboro, S. C.
- Diphtheria.
Dr. M. W. Beach, Charleston, S. C.
- The Office Treatment of Ano-Rectal Diseases, With a Report of a Few Cases.
By Dr. F. M. Durham, Columbia, S. C.
- Magnetic Intraocular Foreign Bodies—Localization: Removal With Giant Magnet: Lantern Slides.
By Dr. J. W. Jervy, Greenville, S. C.
- Sudden Death Following Neo-arsphenamin.
By Dr. George R. Wilkinson, Greenville, S. C.
- Lithotripsy and Endovesical Surgery.
By Dr. Gideon Timberlake, Greenville, S. C.
- Intracranial Hemorrhage in the New Born.
By Dr. W. E. Simpson, Rock Hill, S. C., representing the S. C. Pediatric Society.
- The Transfusion of Blood.
By Dr. James McLeod, Florence, S. C.
- The Injection Method of Treating Hemorrhoids in Selected Cases; and Some Remarks on Other Rectal Diseases.
By Dr. Thomas Brockman, Greer, S. C.
- Tonsillectomy Under Local Anaesthesia.
By Dr. M. R. Mobley, Florence, S. C.
- Giant Cell Bone Tumors, With Lantern Slides.
By Dr. J. S. Rhame, Charleston, S. C.
- Intestinal Obstruction Caused by Non-and Post-Operative Adhesions.
By Dr. Carl B. Epps, Sumter, S. C.
- Icterus Neonatorum.
By Dr. T. L. W. Bailey, Clinton, S. C.
- Mental Hygiene.
By Dr. J. M. Beeler, Columbia, S. C.
- Information.
The reading time of all papers will be fifteen minutes.
- The House of Delegates will convene at eight p. m., April 21st.
- The Cleveland Hotel will be headquarters. Other good hotels are the, Franklin, Finch, and Gresham.
- There will be a reception and ball at the Cleveland Hotel, Wednesday evening, April 22nd.
- The Woman's Auxiliary will provide ample entertainment for the visiting ladies.
- The State Public Health Association, The State Pediatric Society, and The State Eye, Ear, Nose and Throat Society, will hold their usual meetings.

ORIGINAL ARTICLES

PREVENTIVE PEDIATRICS

By *R. M. Pollitzer, M. D., Greenville, S. C.*

To some few the word pediatrics still brings to mind the picture of an infant being artificially fed, or perhaps a "teething" babe getting his prescription for calomel. But in reality this special branch of science is concerned with the care and treatment of the child whether in health or disease, from the time of its earliest intra-uterine existence up to the age of puberty. Pediatrics has grown, so that it now embraces a wide and varied range of subjects. It is for convenience divided into several major groups. One of these is Preventive Pediatrics.

I shall not weary you by quoting figures from the World War to prove how many adults have defects or deformities, which had their origin in childhood, nor shall I try to justify the term preventive as used here; for today our very patients are awakening, though slowly perhaps, to the fact that "an ounce of prevention is better than a pound of cure."

We may try to prevent the occurrence of some malady or infection by a plan of defense such as isolation, fumigation, sterilization or the avoidance of some special activity. Or, on the other hand we may enter upon an aggressive campaign of active prophylaxis, especially where perchance a passive immunity would be too transient, too uncertain or too difficult to obtain. Of course there are certain general measures for prevention as, personal hygiene the maintenance of the body defense by proper nutrition which is most important, and too sanitation. In this paper however only those instances of special or active procedures will be considered which prevent disability, disease or death of the child.

1. Hemorrhage of the Newborn which today appears to be so common and so very serious, demands that obstetrics should be done

by men who are fully cognizant of the dangers that bad management of parturition may bring about. Further after delivery the neonate must not be considered as a by-product, but one must be on the lookout for signs or symptoms of intracranial hemorrhage, or hemorrhage elsewhere from the infant, especially when labor has been difficult, prolonged, of the breech variety or the baby premature. In the present state of our knowledge it is imperative that hemorrhage of the newborn should be treated by lumbar puncture, or blood given by one of several routes or both procedures instituted and that treatment be prompt. At times surgery is indicated though this is generally not desirable.

2. SYPHILIS is so common a disease that its presence must always be considered. It is a malady that plays havoc with the child from a period soon after conception, on for many years. Jeans states that 10% of married women and that 5% of our infant population are syphilitic. J. W. Williams in 1915 found in a series of 10,000 consecutive labors that syphilis was responsible for 26.4% of the fetal deaths. Further it is said that only 28% of babies born syphilitic survive the first year. It becomes evident therefore that the best way to lessen the wastage of life from this great plague is not by treatment of the baby alone, but by early and vigorous treatment of the pregnant mother, and thusly the baby while it is still in utero. Should this ante-natal attack on the disease be omitted we may have an abortion (for syphilis is the greatest single cause of abortion), or a dead full term infant or even a live but syphilitic baby may result. At times the disease is not manifest at once. However when its appearance is delayed up to the third month the mortality is as high as 50%. (Engler & Reimer). Therefore the syphilitic gravida must be treated not only for her own sake, but more especially because of her offspring, and for the good of society.

3. We are just beginning to realize how

greatly health and life are affected by improper nutrition. Insufficient food or starvation needs no discussion here, but diseases and morbid states resulting from absence of some particular food principle or vitamin, is still very imperfectly understood notwithstanding the excellent chemical and biological work that has been done by a host of men. But clinically we do know that Rickets is amazingly frequent and not only in the negro, in the poor, or in the artifically fed; but even in the white, the well-to-do—and often in the breast fed. Rickets should be recognized long before the signs are numerous or marked. The treatment is not difficult. But better than cure is prevention. Proper nutrition, an abundance of sunlight or artificial sunlight along with the early and continuous administration of potent pure undiluted cod-liver-oil should greatly decrease the incidence of this disease which affects not only bone, but the whole body, and which while causative of bow-legs and a deformed pelvis may also initiate convulsions or broncho-pneumonia.

4. SCURVY which is brought about by the absence of an accessory food factor in its typical and frank form in this region is rather uncommon. For that very reason however it is often over-looked. The essential vitamin is present in largest quantities in certain fresh fruit, of which the juice from the orange is the best example. When the disease has occurred it can be quickly cured simply by this addition and regulating the diet. But why wait? All infants on pasteurized, boiled, or sterilized food and occasionally even on the breast are susceptible. Therefore from the early months in general they should be protected against the pain and disability of scurvy, by the use of an efficient anti-scorbutic.

5. There is no question but that infants and children can be immunized against typhoid fever. However I do not advocate this procedure very early, nor in every case except in the presence of an epidemic, or where sanitation is poor for the malady is not very common in early life. I have no objection to its use but do feel that other protective measures are more urgent at this period.

6. Protection against WHOOPING-

COUGH is greatly to be desired, for the disease is extremely common, very contagious and isolation not carried out. Further while its course may be modified yet treatment today is far from perfect. In this country every year about 10,000 children die from it even though the actual mortality is only 4 to 6%. In the first year of life however it is estimated at about 25%. Of previously unaffected individuals about 95% on short but close contact will contract this serious and distressing specific infection. We have a protective bacterin which in the hands of many has worked well. The injection of whooping cough vaccine in large doses repeated at intervals of two days several times should certainly be carried out in all cases where those under four years have been exposed. Unfortunately the protection is not absolute and the immunity is for only a year. But even with its limitations it has great value, in preventive pediatrics.

7. It is almost 126 years since Edward Jenner published his work entitled "An inquiry into the cause and effects of the Variolae Vaccinae". In that lapse of time abundant evidence has piled up showing how valuable a defense vaccination is. The once dreaded small-pox might easily have been completely stamped out from the civilized world had we merely put into practice what was common knowledge. But it seems as though the race must have frequent sacrifice in health and life because of its neglect and stupidity. In this country of ours during the past year there has been a great increase in the incidence of small-pox and the mortality has been considerable. Unfortunately there is a general impression that inasmuch as children must be vaccinated upon entering school, that there is no need for this before school age. It is a great mistake to wait so long. We should also not forget that while the disease in common at all ages yet it is particularly fatal in the young. In the Montreal epidemic of 1885 and 1886 of the 3,164 deaths 2,717 were in children under ten years. (Osler) All babies before reaching the ninth month should be vaccinated, unless they are too feeble, in bad health or have an extensive skin lesion.

8. Many parents and some few doctors

too consider that measles is a very trivial entity, for the death rate is low, about 2 to 3%, and most cases in private practice recover promptly and without sequel. Nevertheless the possibility of a complicating bronchopneumonia, of otitis or perhaps mastoid infection, and the greater predisposition to tuberculosis is an ever present menace. Even though the mortality is low in per cent yet because of the great incidence the malady claims many victims. In England and Wales in 1915 there were over 16,000 deaths from measles and from the same cause in the U. S. in 1923 over 10,000. Our treatment is purely along general lines, and by no means satisfactory.

Since 1915 several workers have attempted immunization, but the first real forward step was taken in 1920 by Rudolph Degwitz of Munich when he published his results in the use of convalescent measles serum in 172 children, not one of whom developed the disease. The work has been corroborated in many lands and in America by Blackfan, by McNeal and by Ratnoff. The last named had a series of over 100 cases (all under 2 years) none of whom developed typical measles, though some had abortive attacks. The technic is to administer from 2 to 5 c. c. of serum obtained from a vein of patients free from tuberculosis or syphilis who are from 7 to 14 days convalescent from uncomplicated measles. This will protect if given subq. 4 days after exposure, and the dose be doubled on the 5th or 6th day; but after the eighth day it is of no value. As yet we do not know how long the immunity persists. Degwitz states that as antibodies are present in the serum the immunity is partly an active one. So far the procedure is not in general use. However it should be used now in hospitals and institutions.

9. SCARLET FEVER has its incidence chiefly among little children for the greatest susceptibility is between infancy and five years. Yet only half those exposed contract it. The mortality in general is 12 to 14% but in cases under 5 years it ranges as a rule from 20 to 30%. Further it is an infection rich in complications many of which are serious. Of these otitis is the most frequent. Furthermore it is

said that this otitis accounts for more cases of permanent deafness than any other contagion. Treatment is entirely along general lines, except for the use of convalescent serum which seems to be of some value. This year Dochez with others has obtained an anti-serum from the horse, by using the special type of streptococcus hemolyticus which is the cause of scarlet fever.

G. F. & G. H. Dick in several contributions during the past 6 months have given accounts of their elaboration of a specific skin test for immunity. Using this as an indicator they have been able to note the change from susceptibility to immunity in individuals after protective inoculations. They inject intramuscularly definite amounts of dilute and later undiluted filtrate from a culture of specific streptococcus hemolyticus, and thereby produce an extremely mild and transient case of scarlet fever, following which the skin test becomes negative, showing immunity. Few cases have been reported as yet and it is too soon to evaluate this new protective procedure. But it does seem highly probable that in the near future we shall be able to use the method in private practice as a routine.

10. DIPHTHERIA is still so common that we are fully conversant with its dangers. Further we know that in its treatment we see one of the greatest triumphs of modern medicine. For since VonBehring in 1894 gave to the world the mighty weapon of antitoxin the mortality has been reduced 80%. But still and even with its help today we are having a mortality of 10%. In the past nine years the death rate has not dropped. The reason for this chiefly because parents summon a physician late and that some doctors give an insufficient dose or delay too long. Schick about 10 years ago gave us the simple skin test for immunity that bears his name. This has greatly increased our knowledge and been of enormous practical value. In this test we inject a very minute amount of freshly diluted diphtheria toxin intradermally. A positive reaction means susceptibility, unless it be a pseudo-reaction. More recently it has become possible to produce an immunity actively and artificially by the injection of a mixture of toxin and

antitoxin hypodermically in the dose of 1 c. c. on three occasions a week apart. The procedure is safe, simple, and reliable. It has been employed in over 1 million children. Immunity ensues in 97% of people who have had the series within 2 to 4 months. Most probably it persists throughout life. Since we know that the susceptibility to the disease doubles between the third and sixth month with an ever increasing chance of exposure and reaches 60% as measured by the Schick between the sixth month and third year we should not procrastinate in the production of immunity. Nor should we fear too great a local reaction, for it is only the older children and adults who have severe protein reactions. In general it would seem the part of wisdom to routinely immunize all children before they have their first birthday, say certainly soon after the sixth month. At present the custom in many places it to wait until they go to school. This is surely a mistake. Nothing can be gained by waiting, and a life may be lost. Some schools now require a certificate of diphtheria immunity as they do for small-pox.

Is it necessary to do a Schick first? No, it is more scientific and more economic, but unnecessary at an early age. After 6 years it might be used with propriety for then, only one out of three children are not naturally immune, and further the more likely unpleasant reaction can be avoided. But already a new preparation is being made that gives very few reactions. Clearly and surely without the least if or but, it is today with in the power of each and all of us to assist in banishing diphtheria from the civilized world. We shall soon see by the diminution in our mortality statistics of this common and dangerous infection how potent for good is this procedure.

Enough and more than enough, has been said herein to prove that we are gradually preventing more and more of the ills that endanger and kill our children. We shall go on and on until at no very distant day most of the diseases of childhood shall be a matter of history.

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THE GOOD OF THE COUNTY SOCIETY

By J. W. Jervey, M. D., Greenville, S. C.

It is said that "A prophet (meaning anybody) is not without honor save in his own country," yet here I am, given the honor, by the grace of your Society, of addressing my own people. For, Mr. Toastmaster, though a resident of Greenville for more than a quarter of a century, and devoted as I am to her interests, I do not wish to be known first as a Greenvillian. Rather would I be first a South Carolinian, and next a citizen and lover of our wonderful Piedmont section. Born on the coast, my alma mater the State University in Columbia, my adopted home in what the Indians called the "Underhills of Ottaray," may I not claim sympathy and kinship with every section of this historic commonwealth? So, here I am, talking to my own people, and proud of the opportunity.

You invite me to speak on the subject of "The Good of the County Medical Society." Since there could be no Beauty without Ugliness; no Rich without Poor; no High without Low; so we cannot assume or visualize Good without Evil; and it is well that we should realize that there exists also such a thing as the "Evil" of the County Medical Society. Remember the words of old Epictetus: "If you wish to be good, first believe that you are bad."

Having the honor of being a past president of my county society; the organizer and first president of the Fourth District Medical Association; an ex-president of our State Medical Association, and officially connected with many other regional and national medical or-

Address by invitation at the banquet of the Spartanburg County Medical Society, February 13th, 1925.

ganizations, I feel that I know a little (but just a little, mind you) of the Good and the Bad in all of these organizations. But I am asked to discuss the County Society, and specifically "The Good of the County Society." To emphasize the point I must contrast it with the Evil of the same, and in order that the better taste shall be left in the mouth of this congenial gathering I shall speak first of the Evil and leave the Best for the last. Our consolation is: "That evil is half cured whose cause we know."

Now let me be even a trifle more personal. It seems a bit of irony that I, a member of a County Medical Society that is quite well known throughout the state for its bitter factional disputes and controversies, should be asked to speak upon this subject. The more so as I frankly tell you that I have not attended a County Society meeting in two or three years—but this, I wish to plead, has been due quite as much to inabilities of a personal sort, as to a disregard or disillusion of the theoretical advantages of such an organization.

The Evils of the County Society, then, as I see them, are:

First: The mere fact that it is a formal organization of a purely local membership engenders the formation of cliques and factions, and stimulates the playing of politics which is evidenced by "Envy, hatred and malice and all uncharitableness."

Second: The fact that the membership and the audience is limited and restricted acts as a discouragement to the individual member to put forth his best efforts in the preparation of a paper or address. The result is that the average program of the County Society is composed of one or two purely perfunctory and uninteresting papers which are but hasty rehashes from current journals or text-book articles, that anyone could more comfortably and profitably read at home. The discussions, as a rule, are equally as unprepared, inane and profitless.

Third: The average practitioner of medicine is as absurdly ignorant of matters relating to public health as the average layman is of the Einstein theory. Yet the average County Medical Society is wont to assume direction of such matters without reference to authorita-

tive opinion, and so, as often as not, makes itself ridiculous in the eyes of the intelligent public. "This is not pleasing to the thoughtful physician."

Fourth: A rigid organization places it in the power of a numerical majority to coerce a conservative and possibly a more intelligent minority on many matters involving personal as well as public problems relating to the profession. This may be democracy, but it is not necessarily either scientific or ethical medicine. It may be said that this objection as also the first one heretofore stated, would apply to any organization; but it is to be remembered that the larger the organization the more likely there are to be more men of lofty vision and wise leadership who are able and willing to lift the masses out of their mediocrity and direct them to a worthy goal. That this is true has been impressed on me by my observation that the really successful County Medical Societies I know are those in which there are a comparatively large number of outstanding men—men who are leaders spiritually as well as intellectually, so that the rank and file, consciously or unconsciously, realize the futility of that miserable monster jealousy and turn their efforts to a far worthier Emulation.

These are monumental evils that I have enumerated. Any one of them would serve as a text for a dissertation; but I have attempted in this poor way to state them briefly and boldly, without elaboration and without reference to minor ills.

But let me, here, revert to an incident of my youth, when, with the cynicism of a tender age I remarked to an old and valued friend that this was a "sad old world."

"Why, my young friend," he replied, with admirable and incisive philosophy, "the world's all right, the only trouble is with people in it." "O purblind race of miserable men, How many among us at this very hour Do forge a lifelong trouble for ourselves By taking true for false, or false for true."

The remedies for the evils I have mentioned are not to be offered here. Indeed, I may as well confess that I do not consider myself a sufficiently well informed medico-sociological therapist to offer cures for all of them, though intimations for the amelioration of some

may appear in our review of "The Good of the County Medical Society." So now we come to the more pleasant task of discussing the Good as opposed to the Evil.

And to the County Society I would sing, in the immortal words of Kingsley:

"Be good, sweet maid, and let who will be clever;

Do noble things, not dream them all day long;
And so make life, death, and that vast forever
One grand, sweet song."

First (and, I believe, foremost): The County Society provides a means and occasion for personal and social contact which is of inestimable value to any class of society engaged in a common line of endeavour, and without which there can be no real community of understanding.

Second: The County Society provides a means and mouthpiece through which the medical profession as a whole can assert and demand its rights and privileges in the body social, politic, and economic.

Third: It provides a clearing house for interesting and unusual cases, when every member has the right and privilege of asking communion with and advice from any other member who may (or may not) have more and better information bearing on the subject. And as a corollary, which is not unworthy of due and proper consideration, it is a forum in which any member may legitimately display his superior knowledge or mastery of a situation.

Fourth: It provides a place to which visitors of distinction in various specialties can be invited to enlighten and instruct the profession as a whole in advanced scientific thought and understanding.

Fifth: It is a sort of collective mentor, whose influence will often serve to keep a potentially errant brother from ludicrous or tragic lapses from propriety and ethics.

Sixth: And last, but not least, it is the ultimate unit through which alone membership in various regional and national medical organizations can be attained, the value of which is, I think, generally recognized and conceded. Assuredly, organization is a necessity for the preservation and advancement of the medical profession. The only question is as to the division of organization units. The existing arrange-

ment is the best so far devised, and in this the County Society is the foundation and cornerstone. Until, then, some better system is devised it is the duty of every good reputable member of the medical profession to maintain membership in his County Society. Whether or not he takes a personal part in its activities and deliberations is a matter which varying circumstances must decide; but regardless of any ordinary eventuations he should lend the organization his moral support by the loyal maintenance of his membership. He who does not is merely "biting his nose to spite his face."

Many years ago, walking on the street, I met by chance an old mountaineer friend—a stolid rustic. He greeted me with a hearty "How do you do?"

In a spirit of raillery I replied: "I do as I please; how do you do?"

In my silly conceit I thought he would have no answer to this; but I was mistaken. He looked at me with a quizzical, but sober gaze, and drawled:

"Wal, I tell ye—I do the best I can."

This is a valuable lesson to learn. Let us all do the best we can, not only in this matter of the County Medical Society, but in all of life's problems; and the chances are, if we honestly do it, according to our best lights, we shall not go very far wrong.

"Who does the best his circumstance allows, Does well, acts nobly; angels could do no more."

THE PASSING OF THE COUNTRY DOCTOR

By J. D. Grist, of the Yorkville Enquirer, York, S. C.

Considerable comment has appeared in the press of the country of late regarding the passing of the country doctor; but it occurs to the writer that these editorial epitaphs are a little premature. While the country doctor is a fast disappearing type his kind is certainly not extinct, certainly not in this section of South Carolina. For instance, there is Doctor Joseph H. Saye, a country doctor here in York county for the past forty years and despite the fact

that his hair and his beard are growing gray, his health is good and he gives every evidence of being fit for many more years of usefulness among a people to whom he has ministered for four decades.

NO HOSPITALS AND ROADS

Seated before a cheerful fire in a private home here a short time ago while awaiting time for the arrival of a new young lady into the world, Dr. Saye got into a reminiscent mood and he talked most interestingly of his medical practice of forty years ago; of the fact that there were no hospitals within fifty miles; a dentist only here and yonder; no roads worthy of the name and in fact, nothing but trouble sure enough for the country doctor together with considerable hardship and inconvenience that does not now have to be endured thanks to the march of progress.

QUEER OLD IDEAS

"Just how they came to be unless it was because of gross ignorance I don't know," Dr. Saye went on to say; "but folks hereabouts had some queer ideas about things when first I came. And many of them in cases of sickness did not believe or rather did not practice the belief that cleanliness is next to Godliness. Just after I came to this section forty years ago I was called to attend a lady who had given birth to a child. She had been given absolutely no attention so far as bathing was concerned. The child had not been bathed although it was twelve hours old. In a close, stuffy room where the little child had been born were seated about a dozen old women around a raging hot fire. In a bed were two children sick with measles. When I gave orders that mother and child be bathed the old women looked at me as though I was crazy and one of them informed me that never in all that community had she heard of mother and babe being bathed and clothing changed until the baby was three days old! And do you know I had to raise a row sure enough before I could get my orders carried out; the old women shaking their heads and muttering while some of them predicted that both mother and child would surely die. It took me a good

while to get that silly notion out of lots of heads.

OPERATING TABLE IN WOODS

"In those early days," the veteran physician went on to say, "I have performed many a dangerous surgical operation out in the woods with the ground for an operating table and a lantern or possibly a pine knot for a light. I recall a most amusing incident in connection with one of those "woods hospitals." I remember some thirty-odd years ago returning to Sharon from a call on a patient away down in Bullock's Creek. As I was going along the road home a colored man stopped me and said there had been a fight between two negroes with the result that one of them was in a serious condition.

"I examined the man and found that he had a crushed skull and seating him in a piece of woods by the side of the road I told him that the back of his skull was crushed and pressing on his brain. I told him that I would try to raise it; but that since I was without the proper instruments I didn't know whether I would be able to do anything for him or not. I warned him to bend his head over and be as still as possible.

"Then I started to lifting that broken skull and that negro never groaned although I know the pain was intense. Finally I paused in my operation for a moment when he raised his head and asked, "Doctor would you mind if I lighted and smoked a cigarette?"

"I told him to go to it and do you know he calmly smoked with bowed head while I cleared the brain of cracked skull? And that negro lived to make many a bale of cotton.

DOCTOR AND DENTIST TOO

"Forty years ago the country doctor was a dentist as well as doctor because of the fact that dentists were few in number and located only in the more thickly settled communities. The horse and buggy or wagon was the only means of transportation and naturally many teeth had to come out at once by the hand of the physician. I have pulled hundreds in my day and could yet if my wrist were not a little weak. But I am thinking of a mean trick I did once. I wouldn't do it now because I

know better; but when a young practitioner I would have my fun at times.

"I had been called to pull a tooth for a young lady who had been suffering with a decayed molar for several days. Her face was swollen until it resembled a full moon. I got the tooth out; but not until she had squalled so long and loud that she could be heard a mile in each direction.

"She had a brother who did not have any more sense than the law allows and who witnessed the operation. He chided her about crying and being a baby and all that sort of thing and finally he concluded: "why sister, I will let the doctor pull out any tooth I have in my head and I'll bet you he can't make me holler."

The sister insisted that he would yell, too, and he insisted that he be put to the test. And I was nothing loath because I believed he would yell and besides, as I said, I was just naturally devilish in those days. So he opened his mouth and I never saw whiter, firmer, prettier teeth in my life. I clamped down on a big molar and I twisted and turned. Finally it came out a big fellow with four roots and as perfect as could be. But sure enough, there was never a squawk out of him.

NEGRO BOILED NEGRO

"I recall an incident that convinced me all negroes are not superstitious and frightened when it comes to handling dead bodies," continued the doctor. "Some thirty years ago a negro was hanged in York jail for the murder of a white man and his body was buried in a field not far from the county seat. I had been desirous of getting hold of a skeleton for some time and I saw my chance. Getting hold of a colored man here, then a servant of mine who is living yet, by the way, I drove to the place where the murderer was buried, dug up the body, put it in my wagon and hauled it to Sharon. Next day I fired up a big pot in an old gin house, put the corpse in there in order to boil the flesh off the bones and left my faithful old negro servant in charge to keep the fire going, etc. Every few hours I'd slip back to see how the proceedings were coming along and I'd see my old negro

put more wood under the pot, look into it and then wall his eyes and sort of chant to himself:

"You bad nigger—kill white man
That why you biling in de pot."

MANY AND VARIED INTERESTS

"Yes, there were many and varied experiences in the old days in the lives of country doctors," concluded the veteran; "but it would take too long to tell you all about them. Forty years ago, the doctor was doctor and preacher and lawyer and counsellor and goodness knows what else. And yet in a way those were the good old days. Money was scarce—most people hereabouts were nothing like in as good financial shape as they are now; but they were ever appreciative and while I would hate to go back over those forty years for many reasons and the present is more advantageous than the past in many respects; still I get much pleasure in reflections and recollections of those old days and old conditions."

And this country doctor is just as busy and his services are in as great demand today as they were thirty years ago.

HOW TO MAINTAIN THE COUNTY MEDICAL SOCIETY

By W. P. Timmerman, M. D., Batesburg, S. C.

Successfully maintaining a county medical society depends very largely, if not entirely, upon local conditions.

It is unfortunate, but nevertheless true that medical men are, as a rule sensitive even though sensible.

In other words the ego with them as with most others predominates.

They, as a rule, are very charitable except towards their colleagues or competitors, and towards them they not infrequently become so prejudiced as to be almost intolerable.

This is not always due to the acts of the competitor, but to the gossiping laymen, not infrequently laywomen.

If we were able to listen without comment, conditions not infrequently would be different.

Read before the Aiken County Medical Society, February 23rd., 1925.

How many or few of us are innocent or free from the usual indiscretion of unfavorable comment or action.

To organize a county medical society, and maintain it does not always require unanimous approval and cooperation. But it does require enthusiasm and cooperation on the part of some.

Those, who conclude to organize and maintain one, must resolve to be sensible rather than sensitive, and above all to be charitable and indulgent; yea long suffering and not given to offense.

In other words somebody must do more than his proportionate share of work, to keep the society alive and active.

He must be on the job continuously and contribute not only his dollars, but himself both in season, and out of season.

The society should never make a rule to require a majority for a quorum, for a scientific meeting, but allow any number present, however, few, to be a quorum for such meeting, and be sure to always have the meeting and make as good report of it as you can.

Do not attempt to have your meetings too often, for if you do, the enthusiasm will probably not last long.

Do not allow your meetings, to be too expensive.

Let the members arrange the programs, and do not assign work to some one who will not respond favorably.

If you have members who will prepare papers, have them to do it, but be present to hear them, and intelligently discuss them.

But, if you have members who object to preparing papers, do not assign such to them, as it may cause them to stay away from your meetings.

Every member should have something to do, but don't give him that which is especially objectionable to him.

Endeavor to make the timid and bashful feel, that much of the success of the society, depends upon their cooperation, as well as attendance "and it does."

May I give a brief resume of our experience in Lexington County?

In 1904, I with Dr. Drafts, another doctor of

Lexington County, decided to try to organize a county medical society.

Most of those, with whom we first discussed it said that it would be a good thing, but that it was impossible to maintain it, as it had been tried before.

This was especially true with regard to the replies from some of the older doctors.

However, after writing to the various doctors of the county, not corresponding with them for none replied to our letters, and after advertising in the county papers, some whom we did not expect and a few others met with us, and we organized and for about twenty years have met regularly, but not often.

I think that we have missed having only two of our regular meetings, and one of those was this year in January.

Then the weather was so very inclement, that it was impracticable yea, almost impossible to have one.

To be sure some of our meetings weren't well attended or interesting, but most of them were.

For a time we had annual meetings at which times, we had great feasts.

Later, we arranged to have something to eat at each meeting, but seldom anything elaborate.

The society usually pays for it's own entertainment, but occasionally a member entertains it and by so doing, helps the treasury, as well as pleasing the inner man.

Luckily, we have never had to pay anything for a meeting place, some charitably inclined doctor, usually allows the use of his office or residence.

Lexington is the usual place of meeting, but we occasionally meet at different towns in the county.

We, not infrequently have guests from outside of our county, but our rule is to have the papers, clinics, etc. of our members before those of our visitors.

For some special reason, we may do differently.

We, stress having clinics, some of which have been very interesting and instructive.

We, have a rule, which doesn't allow the president to serve but one year and we try to

put every member on some committee.

We, are informal and insist upon various ones participating in the various discussions. Possibly those, who are joke tellers have helped our attendance and we usually have some present.

We, have been able to have some of the older doctors as regular attendants.

This, has been one of our strong or drawing points.

We, have also been able to keep an undesirable one from affiliating with us.

We, have been exceedingly fortunate in having efficient secretaries. One served for sixteen consecutive years. His successor has served continuously since he retired.

They, were very constant attendants at our meetings.

The local newspapers and the people generally, have manifested a very friendly attitude towards us.

Nowadays, the people seem to think of us as, a profession rather than a trade union. They, are slowly but apparently surely, beginning to realize that the physicians of the smaller places and those of the cities receive about the same training and have about the same capacity, and sometimes express their sentiments relative thereto.

Recently, the women's auxiliary to the Lexington County Medical Society, was organized.

In conclusion, I see no good reason, why Aiken County shouldn't have a live, active, and influential society, but if you will not, please remember that, we will be pleased to have you join the Lexington County Medical Society and will strive to make it pleasant and interesting to you.

I appreciate having been allowed to be with you and to talk to you.

ROENTGENOLOGY

T. A. Pitts, M. D. Columbia, S. C.

EFFECT OF IRRADIATION UPON LYMPHATIC LEUKEMIA

Irradiation by roentgen rays and radium is a form of therapy that often brings relief to patients with chronic leukemia, though it does not cure either the lymphatic or myelogenous form. It produced distinctly more benefit in myelogenous than in lymphatic leukemia. In a previous report the author has shown from a study of 78 irradiated and 52 non-irradiated cases of chronic myelogenous leukemia that, though a very high percentage of the irradiated cases were distinctly and often very markedly benefited, the duration of life was but little prolonged.

The present report is based on a study of 98 cases of chronic lymphatic leukemia and 57 of the acute form of the disease. End-results have been studied in 80 cases of chronic lymphatic leukemia. Fifty of these had been treated by intensive irradiation from radium or roentgen rays and 30 cases received no irradiation. These latter served as a control group.

1. The decade of life in which the most cases of chronic lymphatic leukemia occur is 45 to 55. Acute lymphatic leukemia seldom occurs after the age of 25.

2. Both chronic and acute lymphatic leukemia affect males about three times as often as females. Both forms of the disease are relatively more frequent in females in the earlier than in the subsequent years of life.

3. The correct diagnosis of the chronic cases was not established on the average until 1.4 years after the first symptoms, though on the average a physician was consulted 0.55 year earlier. On the average the nature of the acute cases was not recognized by their physician until the disease had run two-thirds of its course.

4. Irradiation had no detectable effect on prolonging the duration of either form of the disease. The average duration of life, after the

first symptom, of 80 chronic cases, over 30 years of age, was 3.45 years, being essentially the same for the 50 irradiated cases and the 30 that were not.

The chronic disease lasts a shorter time in younger than older persons. About 60 per cent of all chronic cases live one to four years, and 14 per cent six to eight years. About 50 per cent of the acute cases died in less than two months after initial symptoms.

5. The early institution of irradiation did not result, in this series, in a more favorable prognosis with respect to life extension.

6. Irradiation, properly administered, undoubtedly benefits symptomatically cases of the chronic form of lymphatic leukemia, though not to the extent that occurs in chronic myelogenous leukemia. The chances of symptomatic improvement are in fairly direct relationship with the time before death that treatment is begun.

7. The beneficial effects of irradiation in acute lymphatic leukemia are but evanescent and slight.

8. Irradiation may produce a better production of the formed elements of the marrow and lessen the activity of the formation of lymphocytic cells. The hemoglobin level, numbers of blood platelets, and character of the lymphocytes serve more importantly to adjudge the patient's condition than the number of white cells. A leukemic blood picture may occur when patient's are seriously ill.

Irradiation usually causes little or no improvement in the patient's general condition when the hemoglobin is 50 per cent or less, or when outstanding purpura with thrombopenia is present, or when there are many immature and atypical lymphocytes in the peripheral blood.

9. The effect of irradiation on decreasing the size of lymphnodes or spleen in chronic lymphatic leukemia is apt to be proportional

to the amount of improvement in the patient's general sense of well-being.

10. Treatment should be guided and prognosis formulated from correlated information obtained from the patient's history and physical signs, together with complete blood examinations and basal metabolic blood examinations.

By so doing, in spite of irradiation becoming less and less effective, these therapy is of distinct value and maintains the patient's ef-

ficiency usually much better than if no irradiation is given.

11. The authors express the opinion that the new irradiation methods probably will permit greater benefits from irradiation than in the past ten years.

Lymphatic Leukemia: Age Incidence, Duration, and Benefit Derived from Irradiation.

George B. Minot and Raphael Isaacs. Boston Med. and Surg. Jour., July, 1924, p. 1.

OBSTETRICS AND GYNECOLOGY

R. E. SEIBELS, M. D., Columbia, S. C.

J. Marion Sims.—It seems most fitting in this special number of our Journal, that the page given over to this department should be dedicated to reminding the members of the Association of the debt medical science in general, as well as gynecology, owes to J. Marion Sims, M. D., who was born in Lancaster County, South Carolina, in 1813 and died in New York, in 1883.

It is the ambition of all of us to accomplish some work, the record of which will live after we die. To Sims fell the well-deserved good fortune to leave four monuments that bid fair to live through many generations to come.

He himself regarded his autobiography lightly and seemed surprised that anyone should find it of interest, either for its narrative content or for its literary style. But what a mine of inspiration it is, its unaffectedly, simple, clear style is just the medium convincingly to portray the man's indomitable courage in the face of, apparently, insuperable obstacles. Sentences chosen at random sound almost school-boyish, the simplicity of the English and construction to the first glance seem immature. But the simplicity of it all is but a reflection of the clear honesty of the man, his methods, his ideals. This is a literary monument of which almost any writer might well feel proud.

But let us turn to achievements in gynecology.

Utilizing the knee-chest position, and with a bent pewter spoon as a vaginal retractor, in the summer of 1845, he "saw everything, as no man had ever seen before." When he realized that he had discovered a method which permitted the surgeon to see the lesions of the lower genito-urinary tract—and as a corollary intelligently to treat them—what were his emotions? "Fired with enthusiasm by this wonderful discovery, it raised me into a plane of thought that unfitted me almost for the duties of the day. Still, with gladdened heart, and buoyant spirits, and rejoicing in my soul, I went off to make my daily rounds."

The Sims method for the cure of vesicovaginal fistula brought him probably his greatest fame and yet, curiously enough, in itself it is the least permanent of his monuments. Historically, it is recorded that he first transformed a sufferer from urinary fistula from a foul-smelling invalid, a nuisance to herself as well as a burden to her associates, into an able-bodied, well woman, but the operation itself has been changed by modern methods and the use of different materials so that it bears but little resemblance to the technique advocated by him. But these changes cannot dim the memory of the dauntless courage of the surgeon. He attempted the closure of a urinary fistula when the surgeons of the world had pronounced it a hopeless condition, ameliorated only by the welcome death for which they

prayed. Stirred by his enthusiasm his colleagues in Montgomery stood by Sims and aided the first few operative attacks. But, finally, "two or three years of constant failure and fruitless effort rather made my friends tired, and it was with difficulty that I could get any doctor to help me. At last I performed operations with the assistance of only the patients themselves." In the face of the ridicule of his medical and his lay friends, he supported these patients in a hospital in his yard, while he essayed again and again. Unafraid in spite of 29 complete failures to close the leak in the girl Anarcha, he performed his 30th operation on her with every confidence of succeeding. And then, on the completion of the third case cured by this method, "I realized the fact that, at last, my efforts had been blessed with success, and that I had made, perhaps, one of the most important discoveries of the age for the relief of suffering humanity." This was May or June, 1849.

The Woman's Hospital of the State of New York is a monument in a literal sense. When Sims went to New York in May, 1853, having published his technique for fistula in the *American Journal of the Medical Sciences*, he was known to the profession there and he was invited to operate on patients and demonstrate his technique. Having learned his methods,

and borrowed his instruments, they copied his methods and began to publish their cures—and forgot Sims, having, as they supposed, wrung him dry of useful information. With his spirit uncrushed by this cavalier treatment, and by attacks of diarrhoea that left him so weak that when he fell down he was unable to arise without assistance, he hired a hall, called a meeting of the profession, and outlining his treatment and results begged for a hospital where he could operate on charity patients without pay. Through his untiring efforts and unfailing courage, and the zeal of a few lay friends, the Woman's Hospital was inaugurated the first of May, 1855. For a month before he had been in bed with diarrhoea almost all the time and was so weak that the committee selected a site near his home in order to spare the effort of a long journey to his patients. Today this Hospital is one of the largest special hospitals in the country and is known throughout the civilized world.

"The life of Sims marked an epoch in medical history. He lived to see a new science born, to watch it grow into the perfection of exact beauty and proportion, and he died with dreams of great things yet to be done, filling the chambers of his capacious mind."

The Story of My Life, J. Marion Sims, New York, 1888.

DERMATOLOGY AND SYPHILOLOGY

J. RICHARD ALLISON, M. D., Columbia, S. C.

DISCUSSION OF DR. KIRBY SMITH'S PAPER "LARVA MIGRANS IN THE SOUTHERN STATES."

Read at the Southern Medical Meeting, New Orleans.

Dr. Kirby Smith's paper was particularly interesting to me in that it confirmed my belief that larva migrans or creeping disease, is a comparatively common disease in the south. Four years ago when we first began to see this condition in South Carolina, it was considered by most dermatologists to be a rare disease. Consequently we in Columbia made a special effort to recover the parasite, but without success. We see generally twenty to thirty cases during the summer, but this is only a small percentage of the cases in this neighborhood. The general medical men treat a great many, then a great many get well in spite of home remedies.

Dr. Kirby Smith gives some very interesting data as to the origin. The patient undoubtedly becomes infected with the parasite from damp, polluted soil. The majority of cases we see are in a mill clinic. Around Columbia, S. C. there are many "sand hill ponds"

which are used as swimming pools by a majority of the population. It would appear very probable that the ponds harbor the parasite. As to the treatment, we have tried many remedies. A solution of phosphorous in oil has been claimed by several men to be efficacious. Our results have been disappointing with this method. The injection of iodine in the skin is very painful, causes severe reaction and usually fails to cure. Some time ago, we had a young lady from Florida who had received injections of iodine for this condition. The cure appeared to be worse than the disease. Freezing with ethyl chloride has proven by far the most satisfactory form of treatment in our hands. The parts involved with the surrounding area should be frozen from one to one and a half minutes. The time factor is by far the most important consideration in the method of treatment. Short exposures will almost invariably be followed by a recurrence.

The paper of Dr. Smith's is an excellent treatise on this condition and I for one feel indebted to him.

The above is a discussion of Dr. Kirby Smith's paper on Larva Migrans which on account of the frequency of the disease in South Carolina should be of interest to all physicians.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., CHARLESTON, S. C.

HEMORRHAGE FOLLOWING ADENOID OPERATION

In the December number of *Annals of Otorhinology and Laryngology*, Dr. Fred W. Bailey writes an interesting article on "Hemorrhage Following the Adenoid Operation," on which, as he states, very little has been written, though fatal hemorrhages have been reported in a few cases and there are cases that have not been reported. There also are cases which he does not mention, that unless provision is made cause anxiety to the surgeon, these are cases that bleed for a longer period than normal.

He says, in the case, age 5 years, of secondary hemorrhage occurring on the 5th. day, thromboplasm did not help, the postnasal plug helped some, but the child lost a good deal of blood before it finally stopped. It developed Influenza the day after the hemorrhage stopped, that may have influenced it starting.

I had a case years ago that after much exercise in playing followed by a hot bath, on

about the 5th. day had a secondary adenoid hemorrhage following tonsil and adenoid operation, in which I finally had to use a post-nasal pack, which I left in only about six hours.

The other case he reports, occurred in a case, age 9 years, with coagulation of three minutes, it started to bleed profusely three hours later and was not stopped by grasping and crushing the bleeding point, (a method advocated by Dr. Beck), so he ligated the bleeding point. I have used that method for about four or five years on cases that continued to bleed longer than a few minutes at the time of operation. I think I started to tie bleeding places in the adenoid region sometime about the time I had a severe case of adenoid hemorrhage which did not stop after the operation and needed a post-nasal pack for twenty-four hours to control it. Then I was using the L-force Adenotome, which I have not used since. Now, I first use a clotted blood sponge in the post-nasal region and if it continues to bleed, I tie it.

SOCIETY REPORTS

PROCEEDINGS OF MEETING, MARCH 24, 1925

At a largely attended meeting of the Medical Society of South Carolina held at Roper Hospital on March 24, Dr. W. F. Braasch of the Mayo Clinic gave a most illuminating lecture on "Kidney Stones". This lecture was illustrated by lantern slides. Dr. D. M. Crosson, President, and Dr. E. A. Hines, Secretary of the State Medical Association, made their annual visit to the Society and were present for Dr. Braasch's address. Both of these gentlemen addressed the Society and reported on the progress that is being made in extending propaganda for the Annual Physical Examination, which will be emphasized at the State Association Meeting at Spartanburg.

The Scientific Program was concluded by the following case report by Dr. Jas. J. Ravenel:

Case Report of Bilateral Renal Disease.

"This case is reported because of an interesting bilateral renal disease. Mrs. E. E. G., white, female, age 24, admitted to Roper Hospital, November 6, 1924, with the following history: Two days before admission she was seized with pain over the left kidney area, vomited greenish-looking fluid, and fever began to rise. Next morning she had a chill, later in the day another chill, and two the following day, being the day of admission. Vomiting has persisted at varying intervals since attack began. Voided at frequent intervals small amounts of cloudy urine; there was burning during the act.

"The family history was negative.

"Past history: After birth of a child in 1923, patient had some bladder trouble which cleared up quickly.

"Physical examination, negative except for the following: Teeth poor, pyorrhoëa, gums receding, tonsils submerged and diseased; painful on palpation over left kidney area, anteriorly and posteriorly; also marked tenderness along course of left ureter. Cystoscopy revealed a bladder of normal capacity, no ulcerations but generally congested. A No. 6 catheter passed 30 cm up right ureter without obstruction. The drip from this catheter was slow and no urine could be aspirated from this side. The left side of the bladder was markedly congested. There was an obstruction in the left ureter four centimeters from the bladder, which failed to pass a filiform bougie.

"X-Ray findings of the genito-urinary tract: "A shadow on the left side just behind the 12th rib corresponding to the middle calyx of the kidney is about 2 mm x 3cm. Also an opaque body about 1 x 2 cm in region of left ureter near bladder. On right side there is a shadow exactly the shape of a pyelogram; this is probably a complete calcification of the pelvis and calices on this side. There is a spina bifida occulta of first sacral segment."

"Catheterized bladder specimen at first showed the urine to be acid, Sp. Gr. 1016, albumin xxxx, blood x. Right kidney specimen contained pus xxxx.

Gross phenolsulphonthalein test:

First hour -----	125cc	40 per cent
Second hour -----	70cc	35 per cent
Total -----	195cc	75 per cent

"Blood count: Total white count on day of admission 12640 with 85 per cent polymorphonuclears; two days later it was 5800 with 67 per cent polymorphonuclears; and on the eighth day it was 13240 with 65 per cent polymorphonuclears.

"The temperature ran a typical septic curve varying from normal to 104 F.

"Because of the improvement in the general condition of the patient in the first forty-eight hours after admission, I had hoped to finally pass the obstruction in the left ureter and deliver the calculus. This I utterly failed to do, and on the eighth day the patient began to suffer intensely with renal colic on the left side; temperature rose to 103 F, pulse to 130, blood count changed as previously stated, nausea and vomiting were present. With developments plus a bilateral renal disease, I decided on an extraperitoneal removal of the left ureteral calculus. This was done through a Gibson Incision. The calculus being in the lower ureter and palpable to the examining finger in the vagina, it was easily located by having an assistant push it up from the vaginal roof. The ureter was markedly dilated above the stone, while about the calculus it was greatly thickened and adherent. Because of the fibrosis of the ureter, the stone could not be moved from its bed; therefore, it was necessary to open into the ureter directly over the calculus. The patient made an uneventful recovery, leaving the hospital completely healed, on the thirty-fifth day. A No. 7 catheter now passes freely 30 cm up the right ureter.

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The urinalysis at present is as follows:

	Right Kid.	Left Kid.	Bladder
Amount	3cc	2cc	
Reaction			Acid
Sp. Gr.			1010
Albumen			.
Sugar			0
Acetone			0
Indican			
Casts	0	0	0
Epithelium	0	0	II ren. II sq.
Pus	xxxx	xxxx	xxxx
Blood	I	II	1
Bacteria	No. T. B.	No. T. B.	T. B.
	No area splitting	No area splitting.	
	1.2%	1.4%	
(Appears	3	1-2 min.	4 min.
(Amount	24 cc	14 cc	
P. S. P. (Sp. Gr.	1033	1054	
(Excretion	9%	6%	
(Concentration	37.5%	42.8%	

"Consultant from the medical service states that there are no physical signs of pulmonary tuberculosis, but X-Ray of chest shows a slight calcification of the root shadows. There is some irregularity of the diaphragm on both sides. There is no evidence of infiltration.

"The calcification of the right kidney pelvis is of interest. Renal tuberculosis and infection with the urea-splitting organisms are the usual causes. Tuberculosis is the most common causative factor, and in this case tubercle bacilli have been demonstrated in the bladder urine but not in the kidney specimens. As a result of necrosis and injury to the blood supply, there is stasis, poor absorption and imperfect oxidation in the region of the caseated areas; this condition leads to a deposit of calcium salts from the blood stream. In old tubercles the fats are broken up into fatty acids which combine with calcium to form calcium soaps. Chemists believe that the soaps are later changed into less soluble phosphates and carbonates of calcium.

"Are we here dealing with a case of renal tuberculosis of the right side (which we must at least suspect)? Is the left kidney also the site of a tubercular process with the calculus secondary to it (there is no proof that renal tuberculosis is a causative factor of stone formation, although they may co-exist)? Or is the infection and stone formation of the left kidney simply dependent upon some other etiological, such as the foci of infection of the teeth and tonsils?"

Dr. Ravenel's paper was discussed by Dr. Weinberg of Sumter, Drs. Edgerton and Wyman of Columbia, and Dr. Leonard Ravenel of Florence.

A number of out-of-town visitors were present at this meeting, among whom were:

Dr. W. F. Braasch of the Mayo Clinic.

Dr. W. B. Lyles, Spartanburg, S. C.

Dr. William Bailey.

Dr. J. E. Daniels, Greenville, S. C.

Dr. Leonard Revenel, Florence, S. C.

Dr. M. B. Edgerton, Columbia, S. C.

Dr. M. H. Wyman.

Dr. Milton Weinberg, Sumter, S. C.

Dr. Tom Williams, Washington, D. C.

Dr. J. M. Hobson, Anderson, S. C.

Dr. Shaw, Fountain Inn, S. C.

Dr. D. M. Crosson, President of the South Carolina Medical Association.

Dr. Edgar A. Hines, Secretary.

W. Atmar Smith, M. D.,
Secretary.

DARLINGTON COUNTY

On the evening of February 3rd Dr. J. L. Powe, of Hartsville, most elegantly entertained the members of The Darlington County Medical Society and others of his friends at the Hartsville Country Club. After a delightful barbecue was served the following speakers were introduced:

Dr. L. B. Salters, of Florence, on the Relation of the Physician to the Dentist; Dr. F. H. McLeod, of Florence, on the Relation of the Physician to the Physician, and the Hon. F. A. McLeod, of Florence, on the Relation of the Medical Profession to the Community. All of the speakers handled their subjects with grace and ease and to the point.

We are much indebted to Dr. Powe and to the speakers for this pleasant evening and on behalf of the members of The Darlington County Medical Society I wish to extend thanks to our Host.

Julian T. Coggeshall, Secretary.

The Laurens County Medical Society held its March meeting at Clinton. Following a delightful luncheon at the Clinton Hotel, the meeting was held in the dining parlors of the hotel. Dr. W. D. Ferguson of Laurens, in the absence of Dr. J. M. Bearden President, presided.

Dr. J. Lee Young, read a most excellent paper on "High Fevers in Children," which was generally discussed by all members present.

Dr. R. M. Pollitzer of Greenville read a paper on "Pyloric Stenosis in Children", and reported two interesting cases.

Dr. H. D. Wolfe of Greenville exhibited a number of lantern slides illustrating pathological conditions in the abdominal cavity.

Dr. E. A. Hines, our esteemed and popular Secretary, dropped in on us from somewhere we don't know where and was a special guest of the society for the evening.

Dr. Hines delivered a short address about the Association's work and the State meeting in Spartanburg.

The May meeting will be held in Laurens and a splendid program is being arranged. Dr. Isadore Scheyer of Columbia will be one of the speakers at the May meeting.

J. L. Fennel, Secretary.

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PUBLIC HEALTH

LEON BANOV, M. D.,
Health Officer, Charleston County,
Charleston, S. C.

THE PROGRESS OF PREVENTIVE MEDICINE

Looking back among the dim corridors of time, the historian may note Man's ceaseless efforts in his search for health. While valuing his physical well being but little when he is well, let him once lose his health, and there is nothing that man will not do to regain it. He has been willing to be half drowned, to be buried in the earth up to his chin, to be pierced with needles and branded with hot irons, to have leeches suck his blood, to swallow vile tasting concoctions, to have his back thumped and his vertebrae adjusted—and to pay for all this—in the hope of getting well. He has been willing to try the most mysterious and the most absurd and nonsensical systems of treatment in his efforts to regain the health which he once enjoyed.

This world is steadily growing older, and with the wisdom that comes with age, Man has picked up out of the centuries a great deal of learning, some of which perhaps, he has forgotten, but the majority of which, he has stored away in his mind to be used in the development of that complex Civilization which is ours today.

In studying the rather unsteady and somewhat intermittent development of Civilization, we find Medicine keeping pace with it in every respect—slowly developing or even retrogressing during the dark ages, and making rapid strides during the renaissance periods of Man's development—and today it is a firmly established science resting securely upon a stable foundation of scientific research and discovery.

The most spectacular strides which have been accomplished during the past few years by the Medical sciences, have been made in the field of Preventive Medicine. While curative Medicine has been practiced for many centuries past, preventive Medicine is a comparatively modern outgrowth of this science. A

study of the Mosaic code in the Bible may perhaps lead one to suspect that the world once knew and has since forgotten a considerable amount of knowledge about Hygiene and Sanitation; Scientific Preventive Medicine, as it is practiced today however, is a quite recent offspring of the medical sciences, resulting from the many phenomenal discoveries in Bacteriology, Medical Zoology, and Epidemiology which have been made during the past half century.

Our knowledge of most communicable diseases today is sufficiently advanced to permit practical measures of control to be undertaken; and if we were to put into actual application the knowledge which we now possess, we could without making another single discovery, completely eradicate from the face of the earth at least a half dozen diseases which collectively claim an enormous toll of human life each year.

Notwithstanding the ignorance of the general public and the indifference of the general practitioner of Medicine, a great deal has already been accomplished in the control of communicable diseases; and the average life span of man is slowly but steadily being lengthened, while practically every one of the diseases whose etiology have become known through research and discovery are showing signs of relinquishing their hold upon mankind. Yellow Fever—until comparatively recent times one of the most horrible and one of the most shunned of our epidemic diseases—has been completely eradicated in the United States, and with the progress that is being made against this disease, we can safely expect it to be completely wiped out among civilized people within a few more years. With the discovery of the Eberth-Gaffky bacillus and the establishment of its relationship to Typhoid Fever, this disease is rapidly losing its hold upon civilization. Smallpox is becoming a rarity in enlightened communities,

due to Jenner's discovery of cow pox vaccine. The mortality rate of Diphtheria has been considerably lowered with the use of Antitoxin, and now with the discovery of Toxin-Antitoxin as a prophylactic, the morbidity rate of this disease is showing a similar decline. Scarlet Fever also bids fair to being a thing of the past, within the next few years. Cholera, Tetanus, Bubonic plague and Rabies—each capable not so many years ago, of striking terror in the heart of man merely at the mention of its name—are being conquered through the forces of Science. Malaria and Hookworm—at one time the most devitalizing forces of rural life—are becoming lesser factors, for death and disease, as the remote hamlet and the isolated farm house is beginning to feel the enlightening influence of its County Health Department. Tuberculosis—heretofore known as the Captain of the hosts of Death—has shown a decrease in its death rate of more than fifty per cent during the past two decades.

While all of these splendid victories are gratifying in themselves, they have a double value inasmuch as they serve as encouragement for further efforts in our battle against the forces of death and disease; because while a great deal has been accomplished there still remains a great deal to do in the conservation of human life. For instance, while the

communicable diseases have shown a marked decrease in their respective death rates, and the average life span of Man has been materially lengthened, the diseases of middle life have shown no such tendency. In fact the very fact that our life span has been extended, and more people live to reach middle age, has meant that more diseases of middle life are being noted; and while our death rates from the communicable diseases have been materially reduced, our incidence of Cancer and the so called degenerative or cardiorenal diseases have been slowly but steadily increasing.

It is to be hoped however that the same scientific forces that have conquered the contagious diseases will find satisfactory and efficient methods of combating these other diseases. Satisfactory attempts are already being made to educate the public to seek early treatment in conditions likely to become cancerous, and the periodical physical examination as a means of combating the degenerative diseases of middle life is now being stressed.

Surely, we are steadily advancing in the science of Preventive Medicine, and we may confidently look forward to the day when we can truly say that the average life of man is the Biblical three score and ten.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

Dr. W. F. Braasch, Head of Section on Urology in the Mayo Clinic, Rochester, Minn., last month addressed the Second District Medical Association in Columbia and the Medical Society of South Carolina in Charleston. Both lectures, delivered in an impressive, lucid manner, were very interesting and instructive.

The address in Columbia was on "Errors in X-Ray Interpretations Involving the Urinary Tract." He briefly spoke of the development of urology during the past eighteen years, stating that it had emerged from a venereal status to an indispensable specialty in medicine and surgery. He emphasized that there should be close cooperation between all specialists with due regard to the opinion of each; that the human body can not be cut with a knife into various independent sections; and that the specialist must have a fundamental knowledge of the other branches of medicine.

Routinely, in the Mayo Clinic, every patient with an indefinite abdominal pain is sent to the X-Ray department and then to the urological department for diagnostic study. He showed by lantern slides that the X-Ray examination of the urinary tract without ureteral catheterization and pyelography is of no value and besides would be subject to serious errors of interpretations. All patients having microscopic blood and pus in the urine are given a thorough urological examination. Many lantern slides were shown demonstrating the following conditions: Horse-shoe kidney, duplication of the renal pelvis and ureter, ectopic kidney, stone in the kidney and ureter, hydronephrosis, organic stricture of the ureter, spasmodic stricture of the ureter, tumors of the kidney, tumors of the renal pelvis, polycystic kidney, calcified cyst of the

kidney, atrophic nephritis, tuberculosis of the kidney, calcified glands outside of the urinary tract that might be mistaken for a stone but proved not to be stone by pyelography.

He spoke in Charleston, on kidney and ureteral stone with special reference to multiple and bilateral calculi, illustrating with lantern slides. Rosenow's important contribution to the etiology of calculi was mentioned. Experimentally, Rosenow reproduced stones in animals by injecting cultures of organisms obtained from infected teeth of persons who had calculus, thereby showing the specific and selective action of these organisms for kidney tissues. He does not think that diet has any influence on the formation of stone except in cystin and uric acid lithiasis. Patients suffering from calculi should have every focus of infection removed. The stone forming period is a matter of a few years.

He particularly stressed fluoroscopy being done after the kidney has been exposed at operation to ascertain the exact location of every calculus. Some stones may be seen then that did not show in the X-Ray picture before the operation. In their series of about 2000 operative cases for calculus, there were ten per cent recurrences.

About sixty to seventy per cent of stones in the ureter have been removed by them by cystoscopic manipulation; open operation is done on impacted stones that do not yield to cystoscopic procedures, for multiple stones and those associated with severe infection and those too large to pass. In cases of bilateral stones good urological judgment must be exercised as to whether or not operation should be done, the time and type of operation and as to which kidney should be first operated on.

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The Journal

of the

South Carolina Medical Association

VOL. XXI.

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EDGAR B. HINES, M. D., F. A. C. P., Editor-in-Chief. Seneca, S. C.

ASSOCIATE EDITORS.

INTERNAL MEDICINE

J. H. CANNON, M. D., F. A. C. P., Charleston, S. C.

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EDITORIAL

OUR PRESIDENT

Dr. Robert S. Cathcart of Charleston, S. C. President of the South Carolina Medical Association elected at the Spartanburg meeting, April 21st, 22nd, 23rd, 1925, was born in Columbia, South Carolina, September 25, 1871.

He received his literary education in the public and private schools of his native city. He graduated from the University of South Carolina in 1890, with the degree of PhG and from the Medical College of State of South Carolina in 1893 with degree of M. D.

Dr. Cathcart was in general practice from 1893 until October 1, 1907 when he specialized in surgery.

As Surgeon-in-Chief of the Roper Hospital and Professor of Abdominal Surgery in the Medical College of the State of South Carolina, Dr. Cathcart has occupied a commanding position in the medical educational advance-

ment of our State. In addition to these activities he has been surgeon to the Citadel, the Atlantic Coast Line Railway, the Seaboard Air Line Railway and the Charleston Consolidated Railway Company.

At the outbreak of the World War in 1917 Dr. Cathcart was commissioned by President Wilson a First Lieutenant in the M. O. R. C. and assigned as medical aide to Governor Manning. In this capacity many South Carolina doctors will recall the efficient service rendered at a most critical period in the history of our state. Subsequently, Dr. Cathcart rose rapidly in the service and in 1918 was commissioned a Major and assigned to the base hospital at Camp Wadsworth, S. C. later he served as Chief of the surgical service there and also at the base hospital Camp Sevier and in General Hospital No. 24, Park View, Pennsylvania. At the present time he holds the rank of Lieutenant Colonel in the Medical Officers Reserve Corps.

In the domain of organized medicine Dr. Cathcart has been an active member of numerous societies, among them being, the American College of Surgeons, American Medical Association, Southern Surgical Association, Southern Medical Association, Tri-State Medical Association of which he is an ex-president, the South Carolina Medical Association, Medical Society of South Carolina having been at one time president, the American Society for the Control of Cancer and State Chairman, also and ex-president of the Atlantic Coast Line Railroad Surgeons and the Seaboard Air Line Railway Surgeons.

Dr. Cathcart is a member of several Fraternal orders, including the Masons, Knights Templars and Shriners.

PRESIDENTS ADDRESS

By D. M. Crosson, M. D., Leesville, S. C.

My fellows of the South Carolina Medical Association:

I am grateful to you for your choice in making me, your chief Presiding Officer, for the past year and I want to say to you that I have always been loyal to the Medical profession and have striven to the best of my ability to uphold the true Medical practice and have always cherished the hope, that I would so live and act, that some day you would think that I had achieved the distinction with which you have so kindly honored me, and I ask that you accept my profound and grateful appreciation. I consider it an honor to preside over your deliberations.

I want also to say that I feel doubly honored and desire to extend my best wishes to the local profession and Citizens of the progressive City of Spartanburg, that it should be my privilege and good fortune, to meet with the Medical Association and be its presiding Officer, at this time and place.

I feel like a Scotch Highlander in a "Spartan City" and "All The Klan Around Me," and for all The South Carolina Medical Association, I thank your local Society and your elegant city for your hearty welcome and can

see and feel that we have an enjoyable and profitable occasion before us.

The rarified air we get and these beautiful hills coming down from the fragrant heights of the majestic Blue Ridge always inspires me, to lofty ideals and wonderful intentions, but, I am probably overshadowed by your full expectations on this occasion, but I ask your leniency and kind consideration, while I attempt for a moment to hand you a few of my thoughts, expressed from a due consideration of this subject:

The force of high professional character and attainment.

The intelligence of the people of any County, State or Nation, is the guiding star of force and economical activities, that makes anything worth-while, in any vocation in life, as well as professional attainment.

We see this in all the great steam plants of the world, whether manufacturing the tiniest instruments for mans use in every requirement, or demand, or putting forth the most ponderous and gigantic machines, brought into service, by the demands of this age and time, or of the massive and numerous achievements in Mechanics, Agriculture, Arts, Science, Education along all lines attained in our Schools and Colleges, and from our vast resources of knowledge stored away in our Libraries, and from our daily press and lecture forces, which bring us up to a reasonable degree of what has been expected of us and keeps us somewhat in easy line and place with other communities, States and Nations, in a material sense, but this is as we now speak, all from a mental, educational and financial sense and as "The Needle To The Pole," points directly to the intellect of man and is controlled by "brain force" and power.

This is not brought about by superstitious prejudices against certain fixed progressive laws of nature and educational developments which bring results and helps mankind in all secular and material activities and requirements, agriculturally, educationally, financially, socially and religiously, but all these forces have got to have character that is unquestioned and be governed by certain fixed laws, governed by brains, cultivated and educated along chosen lines. This holding good in the



DR. ROBERT S. CATHCART, PRESIDENT
CHARLESTON, S. C.

various lines of endeavor, must undoubtedly hold good in the physical make up of mankind, hence we have a noble study in the Medical profession.

Men have to cultivate innate genius, in these times, to be able to stand on a par with the achievements of the past, active men in professional life and especially in the practice of Medicine.

Are you awake to your part of the task in our professional attainments, both in character and ability. Have you fully decided, that with our "one line ideas" of specializing, that individually, we are not as well equipped along all lines, or all branches of Medicine, as physicians of former days; but we should be broad minded and fully equipped with character and ability to reach the goal that this age requires of us. 'This age of hurried activities and requirements, watch the grandeur attained in other avenues. Where do we stand as Medical professional men? Have you such force of high character and professional attainments, that each will make a full link in the chain of scientific Medical development? Can we assure ourselves, like Goldsmith said?

"As some tall cliff that lifts its awful form,
Swell from the vale, and midway leaves the storm;
Tho' round its breast, the rolling clouds are spread,
Eternal sunshine settles on its head."

These are lofty sentiments, to know one's life is sustained by high force of character and ability.

Lifes pathway, may not have all along been spread with roses. We all have to come in contact with combative forces but they are but giants, that we may over come, by thorough preparation and lofty ideals and a full co-operation in our professional work.

The worlds great economics demands and hurried activities, may for a time cause us to stop and think, whether or not we are fulfilling the great and high purposes, for which we were professionally intended to perform. We may have doubts, as to our complying strictly to our code of ethics, as the rush of duty now demands, but we should never lose

sight of the fact, that whatever the public may demand, or think, the doctor of today, if prepared, is a man of more than ordinary attainments because he has not only a knowledge of secular and common every day material things, but he is endowed with a knowledge of the mechanism of the human system, which is the grandest science in all the annals of time. For when God in his creative moments decided to make man, he put together the most wondrous piece of machinery—with all its functional organisms working co-operatively together and which goes to make up the human system, in which has been breathed the breath of life; he reached the zenith of his attainments and painted the glory of his achievements and gave man something to study and comprehend; therefore, the Medical Doctor should have a high force of ability and lofty ideals, aspirations and untarnished character, together with a proper knowledge and ability to understand all branches of Medical science and the public will reward him for his attainments.

I then suggest, a greater thoroughness and knowledge in all departments of medicine.

The profession will not long note what I say here, but qualifications and a hearty co-operative professional spirit, is a good and wonderful asset and the public will know and appreciate it and it will be to you a wholesome source of consolation and revenue.

Would you make any changes in your past records and efforts? I dare say you would.

Looking back over past efforts and labors, would you leave matters, as they now stand? Had we time and opportunity there would be many changes, but men lived life times, to find out what they might have done.

The world in all its various pursuits of wealth happiness and comfort recognizes ability and character wherever found and in the numerous vocations in life, none except probably the ministry of the Gospel of Jesus Christ stand higher than the profession of Medicine.

I mean the true allopathic system and practice of Medicine, and have no faith, or sympathy with quackery and cults: Therefore, in this electric age, in this age of progress and full requirements, we must be endowed with

full knowledge to meet any occasion, in all branches and lines in our profession, and as the law of association has much to do with mankind, we must have a hearty co-operation in our Association to maintain our proper standard and keep abreast of the times.

Are you meeting full demands and maintaining the high character and position in every respect, that the high and noble profession of medicine demands?

We should stand high in the galaxy of professional life and we all have a link in the chain to maintain. Let us leave nothing unturned in our efforts to gather material and knowledge to save the lives of the thousands we treat and though it be done through great effort and sacrifice, it will cristillize itself in memory they will owe, which will be a lasting monument to us of their high appreciation of our attainment and worth.

Let's raise dust enough, to befog the air with elevated character and intelligent ability in all things to be noticed.

Who can ever encompass, the comparative estimate of the high character and attainment, the heroism, self sacrifice and struggles of the magnificent merit, that make up the true profession? Then organized medicine will tend to broaden and strengthen the individual members of the profession by coming in touch with outside influences and by absorption of the knowledge of the other members of the association. Therefore, we should devote much time and energy, to the up-building of our association and the enhancement of our ability.

High professional character and attainment are two salient points to have.

Don't be unmindful of your force of character and strength of attainment. By these units of force you will keep clear of the channels of professional destruction and poverty, for the public will make a just estimate of your professional qualifications.

I exhort you members of the 77th. South Carolina Medical Congress, or Association, to help to maintain a one hundred per cent membership of our Association and a lofty standard for our chosen profession.

I have painted to you a clear vision which a public patronage will accept. Will we bear

the quiver with distinction, crowned with the glorious beauty of organized medicine and a proper knowledge of all its scientific divisions and branches?

Too much specialization tends to lessen individual thoroughness and knowledge of all subjects and has a tendency to weaken us individually, rather than broaden us, and we should be careful in cutting ourselves down to one line of thought and study because the mechanism of the human system is so intricate and interwoven, that we must have a knowledge of the whole.

Let's furnish the character, force, ability and attainment to such a degree, that individually, we will each be considered a man and these units will be a great sword in our defence and a great and glorious honor and achievement to our worthy and high profession.

Winthrop said: "The noblest contribution which any man can make for the benefit of posterity is that of a good character. The richest bequest which any man can leave to the youth of his native land is that of a shining, SPOTLESS EXAMPLE."

THE NEW JOURNAL APPRECIATED

New Associate-Editors Elected by The Council.

We have received numerous expressions of appreciation from within and without the state on account of the enlargement and other changes which appeared in the April issue of the Journal. The Editor-in-Chief is profoundly grateful for this keen interest in the official organ of the State Association. There would seem to be no valid reason why every member of the State Association may not look with pride on the progress shown by the Journal, not only physically but in the scientific character of the papers published as original articles and the contributions of the Associate-Editors in their special departments. From a general standpoint our Journal compares very favorably with any or all of the State Journals, though it is the official organ of one of the smallest medical societies in the world publishing a Journal.

The following new Associate-Editors have been elected by the Council for the ensuing year. Associate-Editors are elected annually in order that the duties may not become burdensome. Dr. F. H. Dieterich, Professor of Pathology of the Medical College at Charleston, the retiring Chairman of the Committee on Scientific work was elected Editor of the Department of Pathology. All over the Scientific world pathology is becoming a live subject so to speak. Dr. J. M. Beeler of the State Hospital, Columbia will treat of Nervous and Mental Diseases. Dr. Beeler has had a wide experience recently in establishing psychiatric clinics in various parts of South Carolina. Mental hygiene has engaged the attention of thoughtful men and Dr. Beeler will be in position to interpret all that is best along this line. Dr. J. H. Cannon of Charleston, assistant Professor of Medicine at the Medical College, and recently elected to Fellowship in the American College of Physicians will have charge of the department of Internal Medicine. Dr. R. J. Beachly, the retiring Chairman of the Committee on Health and Public Instruction and newly elected Health Officer of Spartanburg County will present the latest developments of public health. Dr. Beachly made an enviable name for himself as the County Health Officer of Dillon County.

A new department gastroenterology in charge of Dr. F. M. Durham of Columbia will be opened. Dr. Durham was a pioneer in this specialty in South Carolina and has contributed many valuable papers in the literature along this line.

The following Associate-Editors were re-elected by the Council and commended for their very efficient services. Dr. S. O. Black of Spartanburg, Surgery; Dr. T. A. Pitts, Columbia, Roentgenology. Dr. R. M. Pollitzer, Greenville, Pediatrics; Dr. J. F. Townsend, Charleston, Eye, Ear, Nose and Throat; Dr. J. Richard Allison, Columbia, Dermatology; Dr. R. E. Seibels, Columbia, Obstetrics and Gynecology; Dr. Milton Weinberg, Sumter, Urology.

SPARTANBURG MEETING SURPASSES ALL OTHERS

The success of the Spartanburg meeting held last month as was predicted was highly gratifying from many points of view. The attendance approximated four hundred and fifty. The Spartanburg profession impressed the visitors with the earnestness that nothing be left undone to make their stay in the Spartan City memorable for the hospitality of its citizens. The entertainments were marked by simplicity and cordiality. This is in keeping with the expressed desire of the majority of the members of the Association. We suggest that the following lessons may be drawn from the meeting. In the first place, the number of papers has grown to be beyond the reasonable limit for a Society as small as ours. We noted that the length of the program necessarily curtailed a liberal discussion of each paper presented. This certainly should not occur, for it is by means of the discussions that the subjects treated by the essayists accomplish the purpose in view. As to the best means to prevent in future this criticism there are two methods of procedure. There should be a definite limitation of the number of papers presented. This may be done by order of the House of Delegates. The Scientific Committee feels a hesitancy in denying any member of the Association a place on the program.

The other alternative is to divide the scientific program into medical and surgical sections. The Association tried this at Summer-ville some eighteen years ago, but concluded it was a failure. Again the proposition was disapproved by the House of Delegates at the Columbia meeting in recent years. The columns of the Journal are open for a discussion of the whole question by members of the Association. The clinics proved to be extremely interesting and were well attended. The Council went on record as favoring more clinics and fewer papers at subsequent meetings.

We believe that our State Society is the second State in the Union to put on periodic health examinations of the members attending the state meeting. This feature of the Spar-

tanburg meeting will go down in history as an important pioneer movement.

The guests of the Association joined heartily in conducting the clinics, especially Dr. Stewart R. Roberts of Atlanta, Ga. and Dr. William A. Mulherin of Augusta, Ga.

The formal addresses of Dr. Irvin Abell of Louisville, Kentucky and Dr. Stewart R. Roberts of Atlanta, Ga. appealed to the scientific audience as being presented by masters of our profession.

The programs of the Woman's Auxiliary and the Public Health Association added greatly to the success of the convention.

The election of Dr. Robert S. Cathcart of Charleston the distinguished surgeon, to the Presidency assures the South Carolina Medical Association of a leader whose achievements have been notable, and whose endeavors have always been to uphold the highest ideals of scientific medicine and surgery in South Carolina, especially as a teacher and practitioner of surgery.

SOCIETY REPORTS

The Journal has been receiving some unusually interesting society reports the past year. It is hoped these will be enlarged upon and offered in greater numbers than ever before. We commend the report from the Charleston Society published in this issue. Two of the case reports noted therein are of especial interest, one on suture of the heart by Dr. D. L. Maguire. There are not so many cases published in the literature successfully operated upon, though of course the operation has been performed in many parts of the world. It appears, however, that the very encouraging results of the operation merits the consideration of our readers. In the domain of gall bladder disease there has been something lacking in the complete and satisfactory X-Ray examination of the gall bladder. The profession has been very much encouraged of late by the researches of Graham and Cole. The report in this issue by Dr. A. R. Taft on the new method of outlining the gall bladder and with case reports is extremely interesting and points out the necessity for caution in resorting to this technique.

DR. T. GRANGE SIMONS HONORED BY THE COLLEGE OF CHARLESTON

The entire medical profession of South Carolina feels honored that Dr. T. Grange Simons received the degree of Doctor of Laws from the College of Charleston at its recent commencement.

Dr. Simons long ago, was recognized by the South Carolina Medical Association by official honors which increased in number and importance as the years passed even until the present moment. Dr. Simons has filled with remarkable ability practically all of the offices of the State Medical Association. He rendered conspicuous service as a member and chairman of the State Board of Health for nearly twenty years. Indeed we may say that Dr. Simons was one of the real founders and pioneers in the movement which has placed the State Board of Health of South Carolina in the very forefront of health boards of the United States. We are confident that no physician in South Carolina is held in higher esteem and more respected by the profession than Dr. T. Grange Simons of Charleston. The following is the estimate of the career of Dr. Simons at the time of the granting of the degree by the President of the College of Charleston:

"In view of his scientific attainments as a promoter of public hygiene, as a pioneer in the scientific study of yellow fever, as a contributor to medical literature, and as a leader in the medical profession of this community for more than half a century, the faculty unanimously recommends that the honorary degree of Doctor of Laws be conferred upon Thomas Grange Simons, M. D., Professor of *Materia Medica* in the Medical College of the State of South Carolina.

Respectfully submitted,

Harrison Randolph
President."

CENTENNIAL MEMORIAL VOLUME

Alumni and friends of the Medical College at Charleston, who have subscribed for the Centennial Memorial Volume, will be glad to learn that strenuous efforts are being made to get it off the press ready to be delivered about commencement time, the first week in June.

Many unforeseen delays have occurred in securing pictures, addresses delivered on that occasion, etc., but, "what is worth doing is worth doing well," and that takes time.

Patience, please, and we trust you will be agreeably surprised when the volume is put in your hands.

ORIGINAL ARTICLES

THE ANNUAL PHYSICAL EXAMINATION

By J. H. Cannon, M. D., F. A. C. P., Charleston, S. C.

Periodic physical examination of all persons have been recommended by progressive sanitarians for many years. The original suggestion seems to have been made more than half a century ago, but only in comparatively recent years has the movement received considerable impetus and developed the momentum which promises to make it a real factor in the physical welfare of the nation.

Periodic examinations for Life Insurance Companies were suggested about 1870 by a Dr. Dobell in England and Dr. Bares, a French hygienist, urged them twenty years ago, though there is no record of these recommendations having been adopted at the time. In 1909 Dr. Burnside Foster submitted to the Association of Life Insurance Directors a definite plan for life conservation which included physical examinations every five years. The Provident Life Insurance Company was the first to adopt it and did so in 1909.

In 1914, Dr. S. S. Goldwater, Health Commissioner of New York, announced the establishment of a system of periodic physical examination among the employees of the city health department.

Health examinations in Industry began about 1913. Physical examinations for the general public have actually been offered on a

self supporting basis since 1914 by the Life Extension Institute. This organization was first proposed by Mr. Harold A. Ley, who interested a number of prominent persons, including Gen. W. C. Gorgas, Hon. W. H. Taft, Messrs. H. P. Davidson, F. A. Vanderbilt, and Chas. H. Sabin who consented to serve as directors.

During the last decade many other agencies, such as, health departments, life insurance companies, hospitals, clinics, industrial concerns and individual physicians have been taking more and more interest in the proposition.

The American Medical Association, at its St. Louis meeting two years ago, voted to take healthy persons. A committee was appointed with Dr. Haven Emerson as Chairman, which was later enlarged by the addition of representatives from the State Secretaries Association. At the San Francisco meeting the further resolution was passed, that "the county societies be encouraged to make public declaration that their members are ready and prepared to conduct such examinations, it being understood that the indigent only, shall be examined free and all others are expected to pay for such examinations."

Thus we see a growing realization of the necessity of health conservation and the recognition of the periodic physical examination as among the principal means to the end. Long recognized as a necessity, but only comparatively recently has any concerted effort been put forth to put the plan into execution. This is hardly more than we can expect, for the

reaching of the goal set can be accomplished in only one way, that is, a persistent and consistent fight of education not only of the laity, but the profession as well, for order that the gospel of preventive medicine in the form of periodic physical examinations be carried to all the world and preached to every creature, requires that each of us become zealous apostles of the faith.

Perhaps it might be well to spend a few minutes here attempting to outline very briefly, some of the reasons why these measures have come to be considered a necessity. In the past sanitarians and public health officers have dealt with disease in the masses, with epidemics; this was necessary, because the greatest menace from disease were in epidemics of infections and contagious diseases. They were causing the death of thousands and their eradication demanded the concentrated efforts of all concerned in controlling them. To realize how well their efforts have succeeded, one has only to refer to the morbidity and mortality statistics of a few diseases, such as, small pox, yellow fever and typhoid fever as examples. The decline in the death rate from these diseases is a source of gratification to all of those interested and not the least among the reasons for gratification is the fact, that we are now familiar with effective means for their control.

In meeting the demands directed towards the control of endemic, epidemic and pandemic diseases, we have unquestionably directed our attention where it was needed most and where it did the greatest good to the greatest number. Our attention has been so absorbed coping with diseases in the masses, however that preventive medicine as applied to the individual, is today largely an unexplored field, certainly a poorly cultivated one.

The question might well be asked, that since we have under control the epidemic diseases, just what is the menace to individual public health, why the necessity for this nation wide crusade in behalf of the individual. This question will no doubt arise in the minds of the laity, who in the absence of terrifying epidemics is prone to look upon disease of any other type as a visitation of God and therefore its acceptance without any effort upon

their part either to avoid or control them.

Perhaps the greatest menace to individual public health lies in the gradual and progressive increase of the so called degenerative diseases, such as cardiac, vascular, renal disease and cancer. Illustrating the change in mortality figures showing the increase in these diseases, you will recall that because tuberculosis headed the list of causes of death, John Bunyon applied the epithet, "Captain of the men of death" to that disease. Later Sir William Osler applied the phrase to pneumonia. We now find that heart disease has increased to the extent that it now heads the list of all causes of death and therefore it justly deserves the designation, "Captain of the men of death." There has likewise been an increase in the death rate from arterial and renal diseases and the increase in death rate from cancer is well known.

The constant presence, lack of contagion, wide spread distribution, characteristic slow insidious onset, the predilection for the time of life that is associated with many conditions traditionally attributed to old age, makes for a placidity and equanimity in the presence of such diseases in striking contrast to the terror stricken populace in the presence of an epidemic whose toll may be far less.

It is true that there is a good deal about these conditions that we do not know. In the case of cancer, about the only two indisputable factors that we know about it is, first, that it is increasing and secondly, that any treatment to be effective must be instituted early. There are many factors that are not clear to us in diseases of the heart, arteries and kidneys, but we do believe we understand some of the factors leading to impairment of these organs and one point that we all agree upon is, that recognizing pathology in its incipency we can prevent damage far better than we can repair that damage once it has occurred.

Perhaps it may be argued that these conditions relate to the middle aged, the elderly, the weakling mentally or physically. I wish to emphasize that it is the supposedly and actually well man, the athlete who should jealously guard his health and throw every possible safe guard around it and to rely upon his feelings as an indication for medical attention

is often grossly unreliable as is well known. As an illustration that the young individual does not enjoy immunity, but on the other hand suffers a comparatively enormous amount of defects, one has only to refer to the report of the draft boards during the war, which gives us these startling figures. Out of every nine men between the ages of eighteen and forty two, three were fit and healthy and qualified for any duty they might be called upon to perform, two were on a low plane of health, due to lack of development or disability, three were capable of standing only very limited exertion and compared to what they should have been at their ages, were physical wrecks and the remaining one, was a chronic invalid with a precarious hold on life. Please bear in mind that these men were what has been called the "flower of American manhood."

Again, in twenty thousand rejections by a large insurance company, nearly nine thousand were rejected because of cardio-vascular and renal defects sufficient to cause rejection. Extremely significant here was the fact that 90 per cent of these applicants considered themselves in perfect health.

In fifteen hundred X-Ray examinations of the chest at the Life Extension Institute, 17 per cent were found with enlarged heart, 15 per cent with evidence of former tuberculosis, 4 per cent with active tuberculosis and about 5 per cent with changes in the great blood vessels. Of 20,000 dental series made in the laboratory of the Life Extension Institute, 63 per cent showed root infection. 94 per cent on their advice took the films to their dentists. 78 per cent had extractions or treatment or both. 63 per cent of these reported improvement in symptoms or general health within six months. Other reported conditions revealed by physical or laboratory examinations by the Institute are as follows: More than 53 per cent of supposedly healthy people engaged at work, examined by the institute, showed faulty vision uncorrected, 44 per cent showed faulty posture, 21 per cent had flat foot, 16 per cent showed heart impairment, 12 per cent showed combined heart blood-vessel and kidney changes, 25 per cent showed well marked arterial changes, and 26 per cent

showed blood pressure changes of importance.

Their records showed that on re-examination 60 per cent of those examined showed definite improvement or correction of impairments and it is a matter of record that such examinations in life insurance groups have reduced the mortality 50 per cent below that expected.

It has been my object in the foregoing to try and show the prevalence of diseased conditions among all classes of people and particularly among the supposedly healthy and while I have covered only a portion of the field, yet I believe it will serve to emphasize the point taken by sanitarians, health officers and similar bodies, the necessity for doing something to cope with the situation.

The question seems to be then, what can be done? That our present methods are inadequate, as shown by the widespread prevalence of defects of all kinds and the increasing morbidity and mortality of at least certain types of diseases, certainly seems beyond dispute. Waiting until the patient comes for relief of symptoms is to wait until pathology has developed to the stage which means to the Doctor, another chronic, with its notoriously unsatisfactory prognosis, often all that can be done is to make the patient as comfortable as possible and await the inevitable; tragedy for the patient, for about all the comfort one in such a stage can derive from his physician is, that he is an awfully interesting, but utterly hopeless case. There seems to be no doubt, that if we wish to accomplish anything worth while necessitates the seeing of these cases before they have developed symptoms, when we can at least hope to stay the progress of the disease with a little more optimism than at a later stage) and the only way that can be accomplished is by the systematic and continued education of the public to come for examination at regular intervals, and before the advent of symptoms.

This is going to be difficult. There is no law by which we can compel a man to have a physical examination if he is not spreading contagion. It will come as the public is educated to understand that we can prevent the development of diseases, frequently by pointing out to the individual errors in his ways of

living, such as his work, recreation, relaxation and sleep, diet, fluid intake, pointing out abnormal reactions to his environment, helping him to avoid some and overcome others, removal of foci of infection, dangers of overweight, errors of vision and posture, etc., that such factors uncorrected are potential sources of ill health.

Perhaps one of the greatest educational levers we possess, is the individual who has had an examination properly carried out and correct advice given him. This campaign by word of mouth by one examined will be invaluable if the work is carefully and conscientiously carried out, but apt to develop a boomerang effect, reflecting discredit upon the examining doctor, the examination and the profession if poorly done or the advice given is not accurate and well balanced.

We should bear in mind that the examination will be time consuming, for the history must be searching in its completeness, the symptoms that later may be so marked that "he who runs may read," is now only the speck on the horizon, and yet, if it is not found, imagine how it will reflect on the examiner, the procedure and the profession. The physical too will be more difficult. The pulmonary cavity of a year hence may now be represented by a few fine crepitations heard only following cough and deep breathing, etc. So that we are entering upon a new era in medicine. It calls for greater care, more minutiae, greater skill, more patience and keener observation, but I am convinced will yield results to be obtained in no other way.

It is so generally conceded that the only way we can hope for improvement is through education of the public for the need of the annual physical examination, that schools and colleges are requiring it of their students, some of the medical colleges are giving a separate course in these examinations, hospitals are requiring it of their nurses and employees, the larger corporations who have been using it testify enthusiastically as to the results obtained. Several States have undertaken the proposition as a state wide program, enlisting the cooperation and help of various societies and organizations. In Illinois the lay, or semi-lay organization has been chartered and in-

corporated for the specific purpose of promoting periodic health examinations. In Indiana, a public relations committee has been organized with a paid secretary, in New York and Brooklyn lay organizations have been formed for a similar purpose. In Washington, Wisconsin and Texas similar organizations have been formed.

The educational program should not be confined entirely to the public. The entire profession has first to be educated to the necessity for annual physical examinations and the technic. All County Societies should set aside meetings with the object in view of discussing the subject, invite men in the various specialties to address them on their side of the question, etc.

The pediatricians are to be congratulated on being alive to the situation and are much ahead of the rest of us in getting their work started. The educational benefit resulting from the well baby clinics all over the country have done and are still doing a vast amount of good and I hardly think any one will question the value of health inspection for school children, the nutrition clinics, etc.

There are a good many phases of the question to be considered. It has been decided by those States putting on a State wide campaign, that the profession can best serve by not being too prominently in the foreground. No doubt there would be many who would say that the medical profession is sponsoring it for personal gain and while the profession does not have that object in view at all yet, it is believed that it will result in increased financial remuneration. On the other hand if the work is well done, the patient will be tremendously benefited and will receive far and away more than he gives should he consider it from that standpoint.

Again, a great deal of judgment will have to be exercised in informing patients of the findings. All people are naturally apprehensive about their health. Perhaps one of the greatest obstacles to be overcome in getting people to come for examinations is the fear that something may be found wrong. To such a case the injudicious and tactless expression by the examiner of some minor disability may result in a state of mental apprehension of

far greater damage to the individual than the slight physical defect.

Such examinations will make for better rounded out physicians. A glance at the chart shows that an examination carried out according to the questions asked will give a good well balanced idea of the case. The work will be a great aid in helping to keep us out of the rut, will develop and maintain the habit of taking full and complete histories and physical examinations, will stimulate the keeping of case records and altogether the greatest antidote for the snapshot diagnosis ever discovered.

It is also believed that such a program, well carried out will be the greatest blow to the various cults that can be given. An earnest and conscientious profession in a great concerted educational movement such as this promises to be, in a campaign to enlighten the public as to the cause and prevention of disease, cannot fail to bear fruit and I believe

our results will be in direct proportion to our efforts, until the time will come when the public will no more patronize the electronic reaction of Abrams and kindred cults, than they would now consider the beating of Tom-toms by the Aborigines Medicine man.

Lastly, but by no means least, it will be the means of enriching scientific medicine that could be accomplished in no other way. We are all familiar with the attitude of Sir James McKenzie, who long maintained, that what we needed was not so much new signs and symptoms of the manifestations of disease, but a knowledge of the disease early, the sequence of events leading to the diseased condition and he stoutly maintained that to do so required a knowledge of the case long before the advent of symptoms. I know of no way that we can get in closer touch with our patients for such study and observation than by the above method.

DR. JOSEPH JENKINS WATSON

Joseph Jenkins Watson was born at Ridge Spring July 2, 1872, the son of Stanmore and Sarah Jenkins Watson. Both paternal and maternal forebears were of Revolutionary stock, and from the memories of the Rev. James Jenkins, his maternal great grandfather, published in 1842, one gets an insight into a character whose sturdy traits were transmitted in direct line of descent to reappear in the subject of this sketch. This great grandfather was a circuit riding Methodist minister who was born in 1764 in the upper part of Britton's Neck, on the north side of the little Pee Dee river. The concluding paragraph of the memoirs of this ancestor emphasizes features of character which were strikingly prominent in Dr. Watson. It is herewith quoted in part;-----"I have used plainness of speech in public labors and private reproofs, I have frequently incurred the displeasure of my brethern, preachers and members, saints and sinners. They say I am harsh and rough. Well, if I err, it is not so much

the fault of the heart as of the head or constitution." Who of those who knew Dr. Watson will not recognize the trait?

Joseph Jenkins, the son of the Rev. James Jenkins and the grandfather of Dr. Watson, was a physician. In the family of his maternal grandparents were three physicians, Dr. John Myers and his two sons, Jeff and Marvin.

As a boy Dr. Watson showed traits of leadership, but was not apt in his studies. His early education was in the home, by tutors and in the schools of the neighborhood. He entered the University of South Carolina at the age of seventeen in the school of pharmacy, completing the course in the year 1890. After a brief period as a pharmacist he entered the Medical School of the State of South Carolina in 1893. He received his degree in 1896, graduating with high honors. He began the practice of his profession in Columbia being associated with his kinsman, Dr. A. N. Talley, until the death of the latter. Dr. Watson continued general practice until 1910 when his consultation work compelled him to limit his work to internal medicine. At this time he became widely known by his interest in and

contributions to the subject of pellagra. In this connection he visited Milan and studied the disease in the clinic of Lombroso.

From this time until his death he enjoyed an extensive experience in which he used his remarkable faculty of observation supported by his studious disposition to develop into a true philosopher of medicine.

There is scarcely a subject of a medical nature of which he did not have a working knowledge. His mind had become a veritable medical storehouse which could be drawn upon at a moment's notice for the benefit of those needing his services.

Not only was he a great diagnostician, but he possessed to a wonderful degree the ability of imparting knowledge to others. One of the joys of his life in his latter years was his association with the younger men of the profession and he gave them information which had come through his rich experience.

It is to be regretted that he has left so few contributions to medical literature by which future generations could estimate his true worth and which would serve as a lasting monument to his intellect and his actual achievement in the advancement of medical science and practice. There were several reasons known to his friends why he did not contribute more to the literature of medicine—chief among them being his aversion to medical articles bearing as he characteristically expressed it, "the odor of sheepskin and containing little of helpful information." The most notable contribution was his paper on the "Symptomatology and Treatment of Pellagra," read at the conference on pellagra held in Columbia in 1909 and again presented in revised form before the New York Academy of Medicine to which he and the late Dr. J. W. Babcock had been invited to deliver addresses on this subject. Another important contribution was his paper in 1911 describing and showing by drawings the method which had been devised by him for intravenous medication.

Dr. Watson was at all times deeply interested in medical education and served on the State Board of Examiners from 1907 to 1919.

Aside from his medical work he was in many ways an unusual man and only his intimate friends knew the real feeling that lay in his heart. His manner to the casual observer was misleading and frequently did injustice to his truer self. He often appeared rough and brusque, but to those who understood him this was a reaction to conceal a tender and sympathetic nature.

He was fond of sports, but on account of his physical condition was able to participate in only those requiring the least exertion. He became expert at trap shooting and won several trophies at national meetings. Another diversion was supplied by his fondness for antique furniture and his collection is among the best in the State. He was a connoisseur and loved it for the art it expressed.

Literature claimed a due share of his attention and he scanned its pages with a fine appreciation and drew from it an inspiration which stimulated him in his efforts to attain always the highest and best in his chosen field. He followed his profession day by day not as one driven by necessity or circumstances, but as one engaged in a great uplift work for suffering and plodding humanity. His vision of the future permitted him to see the human race attain a supremacy over disease and "the ills that flesh is heir to" through the achievements of medical science in sanitation, surgery, general practice and in the enlightenment of communities and individuals as to the laws of health that tend to make "a sound mind in a sound body."

His death brought to a close the last chapter of a useful life.

On March 2, 1897 Dr. Watson married Miss Elberta China of Sumter who with the following sons survive him, Joseph Jenkins, Stanmore, James and Archie.

Dr. Watson died October 15, 1924 and at his request was buried at Ridge Spring near his old home.

C. F. Williams, M. D., Chairman.
George Benet, M. D.,
S. E. Harmon, M. D.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

SYSTEMIC INFECTION COMPLICATIONS, PURULENT MIDDLE EAR DISEASES.

By *S. J. Kopetsky, Section Otology, A. M. A.*
1924.

Mastoiditis per se does not cause anxiety, it is the extension of the infection beyond the mastoid that keeps one awake at night. He treats the conditions under two groups.

In group one the pathology is necrosis of the intercellular bony walls with the formation of a large cavity of pus and detritus, and may be a breaking down of the inner plate and an involvement of the sinus. In group one, there is always an effort on the part of nature to place a barrier of granulations tissue across the path of advancement. This type extends by continuity, the systemic infection is a late manifestation and sinus infection may be prevented by a mastoid operation before the inner plate is destroyed. Blood culture is positive in sinus infection in less than 50 per cent of the cases and secondary lesions occur in 50 per cent of cases. The etiological factors are those of acute otitis media, as acute rhinopharyngitis, systemic diseases and exanthemata.

In group two the etiology is always the hemolytic organism with the mode of invasion through the blood stream. The pathology of group two shows no necrosis of the inter-

cellular wells, not even late in the disease, so that the X-Ray is apt to mislead one as to the extent of the disease. But the mucous membrane of the entire mastoid is distended with blood and there are thrombi of the small vessels. This group does not like group one extend from the antrum to the periphery but it involves the whole mastoid at once. The protective forces are not granulations so subperiosteal perisinial or extradural abscesses are extremely rare, but sinus thrombi, secondary lesions and osteothrombotic phlebitis are common. Extension of the lesion occurs by extension of the thrombi, the sinus becoming involved by the thrombi passing into the blood stream. There may be, frequently is, a normal sinus plate, granulations are never found. The patient is sick from the onset; abrupt rises and falls of temperature, prostration, chills. The membrana tympani bulges only a little, there is serosanguinous discharge, much engorgement and little pus. The blood picture is significant. There is gradual reduction of hemoglobin and total red blood cells, the leucocytes tend to fall or are stationary.

If the patient is to recover the hemoglobin, R. B. C. and leucocytes do not fall. In group one, surgery is for drainage. In group two, it is to remove the mass of infected thrombi and if successful the blood picture indicates it.

Transfusion of whole blood should be given if the hemoglobin is below 55 per cent or the total leucocytes is down to 10,000.

PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

From time to time one sees in the medical Journals articles on our mistakes especially pointing out various types of "pitfalls." Treatment is still so much a matter of personal equation and individual experience that most of these papers deal with diagnosis. As a rule but little is learned, partly because the particular errors cited do not seem at all likely to us, or the type of case is outside our special line of interest. However in a special ty such as children which is so wide and where so much depends on a correct diagnosis each and all of us could hold post-mortems as it were on our failures to recognize certain definite clinical entities. In a certain percentage of cases we might truly acquit ourselves of any gross ignorance or negligence; for at times the difficulty in well-nigh insurmountable. Leaving out of consideration this group of cases, we would be left with several others. Too great a reliance on the history with a tendency to a preconceived opinion (which is most difficult to eradicate) is extremely hard to avoid in the presence of a too voluble mother. A physical examination which quickly discloses some sign is very apt to influence our judgment, to the extent of our feeling, that the diagnosis is already had; and the remainder is done in a perfunctory and uninterested way. Being human, most of us work only because we have to, and we examine our little patients not for any reason except from necessity. It is the tendency now, and quite naturally so, for each of us to lean too heavily on the laboratory. Where we suspect malaria or hookworm, for instance, if the first examination is negative we rule it out. It has even happened for a man to give up the diagnosis of typhoid because of a negative Widal, and most unhappily and ignorantly not to give autitoxin because of a negative culture for Klebs-Löffler. And yet conversely we fail to give sufficient importance to a laboratory report. For instance a leucopenia while not

pathognomonic is of great assistance very often. The X-Ray man is of tremendous aid, but before calling on him the older and valuable procedures of inspection, palpation, percussion and auscultation ought to be utilized.

For instance except in atypical cases where we have diagnosed say congenital hypertrophic pyloric stenosis, a radiologic examination should be but corroborative evidence. A pneumonia may be found by the radiologist several days before the physical signs are apparent; but even though this can be done in the vast majority of cases we should recognize the process without its use.

In the main, aside from the history when we strive to arrive at a diagnosis through physical examination there are two distinct stages. First, we detect certain abnormalities, and then try to put together the findings to fit into some known malady. In the days work after some years of experience we find mostly those things that we have seen over and over. Therefore we are not obliged to do much thinking to account for the presenting signs; but on the other hand we are more prone to get a clue from the history, look for some expression of an expected lesion, and upon finding it, rest satisfied. Often this does suffice, but frequently we miss what is of far greater consequence. The writer has seen this many times. A pyuria which may have been present for a long period can prevent our recognizing a malaria of recent origin. On one occasion in my experience the presence of measles delayed the recognition of a brain tumor. A very common error, in babies particularly, is to account for all the symptoms on the basis of history. This probably explains most of the missed diagnoses during the first year. It is but too easy to agree with the mother in thinking the diet at fault, when in reality the tonsils or ears are affected. It would be highly interesting for some one with a large pediatric clientele to tell us what per-

centage of infants have tonsilitis between the 6th month and the first year. The number is not inconsiderable by any means, though of course, season place and hygiene are important factors.

It should give us much cause for humility when we honestly reflect on our many and varied diagnostic errors, especially those which were easily avoidable, and while realizing that "To err is human" and thus rendering an excuse, we should not lose sight of the fact, that the same kind of mistake should not be re-

peated. But, partly through lack of time and more often insufficient care we each of us commit over and over the same blunders.

It might be well, and surely would not be difficult to report at our medical meetings our failures and their basic causes, rather than our instances of success. For the latter teach but little as a rule and tend to instill into us a greater degree of self esteem and dogmatism, which traits are already too highly developed in many of our profession.

INTERNAL MEDICINE

J. H. CANNON, M. D., F. A. C. P., CHARLESTON, S. C.

CORONARY THROMBOSIS

1. Sudden severe anginoid pain, substernal or upper abdominal.

2. A pinched ashen gray or very pale facies, often associated with the sensation of impending dissolution.

3. An acute emphysematous distension of the lungs, with dyspnoea or extreme orthopnoea and moist crackling rales at the bases of the lung, together with the evidences of the acute onset of cardiac decompensation.

4. An easily compressed rapid thready pulse, which may present almost any form of arrhythmia.

5. A sudden drop in the systolic pressure following the severe pain and early myocardial exhaustion.

6. A cardiac impulse, if palpable, that is a diffuse feeble tap, distant heart sounds and often a tic-tac or gallop rhythm.

7. A localized pericardial friction rub, which is evanescent, appearing as early as a few hours or a day or two after the sudden onset of the agonizing pain. It may be missed if the infarct involves the posterior aspect of the heart.

8. A fever of short duration and of mild type associated with a polymorphonuclear leukocytosis. This does not occur in simple angina pectoris.

9. Inversion or iso-electric position of the T-wave, with arborization block.

10. Associated with the above described symptoms, the presence of a large tender liver, together with the symptoms and physical signs of pulmonary infarction, is suggestive of thrombosis of the right coronary artery or its branches while the sudden onset of pulmonary edema or recurring attacks, together with the development of sudden arterial plugging of the vessels of the brain, viscera or extremities, with the characteristic electrocardiogram is highly suggestive of a thrombosis of a branch of the left coronary artery.

Thus Gordinier, (*Am. Jour. Med. Sc.* Aug. 1924) summarizes the salient features presented by the patient when a portion of his myocardium is deprived of its nutrition by a more or less sudden obstruction of one or other branches of the coronary artery.

The familiar picture which he paints so clearly and yet so briefly, is one of a condition without a peer in the tragedy that it portrays. As he points out, coronary arterial occlusion with cardiac infarction has until recently been recognized only as a pathological curiosity at the autopsy table.

A portion of heart muscle deprived of its plying artery becomes ischaemic and pale, and undergoes coagulation necrosis, also called anaemic necrosis or anaemic infarct. This in-

farcted area may become myomalaceous, that is, the intire musculature may become softened. Rarely, such a softened area may develop into aneurysm of the cardiac wall and finally rupture, much more frequently it undergoes organization, absorption of the necrotic material, finally resulting in scar tissue formation.

Associated pathological findings aside from the above are, atheromatous changes in the presigmoid part of the aortic arch, including the sinuses of Valsalva and mouths of the coronaries. Atheroma of the coronaries, thoracic aneurysm, infectious and syphilitic mesaortitis, syphilitic endarteritis, obliterating arteritis, general arterio-sclerosis, chronic pericardial adhesions, and myocardial degeneration. Sudden embolic plugging may occur in septicaemia and pyaemia or during the course of septic or simple endocarditis, from mural thrombi from the cardiac chambers and especially from the muscoli pectinati of the auricular appendages.

Gordinier classifies the cases of coronary occlusion as follows:

1—Cases, not at all rare, where death is very sudden, preceded or not by terrific substernal pain. Autopsy only discloses the true nature of the condition.

2—Cases which are preceded by the above described subjective symptoms and physical signs of coronary arterial occlusion, death occurring suddenly or in a few hours or days.

3—Cases in which death is due to myocardial insufficiency weeks or months after the characteristic abrupt stormy onset

4—Cases with abrupt onset with all the clinical manifestations of this entity, which eventually make a fairly good recovery but with a diminished cardiac reserve.

Gordinier records thirteen cases which he

has diagnosed as coronary arterial occlusion. A Partial analysis of these cases is interesting. There were ten males and three females. Between forty and fifty there was one case; 50-60 4 cases, 60-70 5 cases, 70-80 2 cases, (1 age not stated). Of the symptoms presented, pain was the most outstanding. It is recorded as midtsernal in 9 cases, epigastric 1 precordial 1, lower sternum and spigastric 1, lower sternum 1; character is stated as dull, 1, pressure 2, crushing 3, not stated 5, numbness and precordial distress 1, vise like 1, pain did not radiate in 8, down left arm in 2, to left shoulder in 1, left wrist and later right wrist, 1, to back 1, both arms and neck 1,; intensity is recorded as severe in all but one case; the onset is recorded as sudden in 8, indefinite in 5. Pulmonary infraction occurred once, pulmonary oedema once; moderate fever is recorded in 7 cases, not stated in 6. A pericardial friction rub was heard in every case except two and those were not seen for two weeks or more after onset of symptoms. Of these cases 7 died and 6 recovered.

The cause of cardiac pain is not completely understood, for instance, the many theories advanced to explain angina pectoris. Perhaps Neuhof (*The Heart*) sums up our knowledge as well and as briefly as any. He states as follows, "Precordial pains in all types of severe organic cardiac disease is probably due fundamentally to some sudden disturbance in nutrition (as in coronary occlusion; to some added infection (as in rheumatism); or to some adverse mechanical factor (as in cardiac dilatation). These three factors may be summed up in the one, that the basic cause of heart pain lies in some marked alteration of the myocardium by which it cannot contract and pump blood efficiently." (Plain due to pericarditis not included in above).

SOCIETY REPORTS

REPORT OF PROCEEDINGS OF THE MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, HELD AT ROPER HOSPITAL, MARCH 10, 1925.

The program provided for this meeting consisted of a series of Surgical Reports on various subjects.

1. "Exhibition of patient with successfully sutured heart, 11 months after operation"—Dr. D. L. Maguire.

(Report follows):

"This patient was admitted to Roper Hospital on April 14, 1924, with stab wound of the heart. He was operated on, four sutures of chronic cat-gut No. 1 being placed in right auricle to close up the stab wound in this cavity. Pericardium was sutured with chronic cat-gut No. 1.

"Patient remained in hospital one month and was discharged in fairly good condition. Heart rate was 84, but there were no abnormal cardiac sounds nor any pericardial friction rubs.

"For the last eight months patient has been in good health and does not complain of any dyspnoea nor cardiac distress. He helps his father as a bricklayer and is able to work all day. Socially, he attends dances and is really intending to go to a dance to-night."

Report was discussed by Drs. W. H. Johnson, Rutledge, and others.

2. "Congenital Obstruction of the Bowel"—Dr. A. J. Buist. With exhibition of specimen.

"The infant was full term, born at noon. There was a clubfoot on left side and umbilical hernia the size of an egg. The obstetrician reported a very short umbilical cord, so short that it ruptured at the umbilicus at the time of delivery. The infant was well nourished.

"A few hours after delivery the infant began to vomit and cried intermittantly. When seen at 10 o'clock the morning following its birth it was crying intermittantly, abdominal muscles were tense, and there was vomiting of meconium. The umbilical hernia could be only partly reduced. A diagnosis of intestinal obstruction in hernial sac was made, and at 12 M. the child was operated upon for this condition. The hernial sac contained several loops of intestine and the appendix. One loop was of normal size and filled with gas upon cutting the constricting ring. The other loops were small and collapsed, and the appendix much smaller than usual. The constricting ring having been cut and the appendix removed, the loops of bowel were re-

turned to the abdomen, and a modified Mayo operation for umbilical hernia was performed.

"For several hours the vomiting ceased, but later returned and was of the same character as before. As it was evident that the obstruction persisted, the infant was again operated upon at 8:00 P. M. the following day, the abdomen being opened by a right rectus incision.

"The following condition was found: the small gut terminated in a dilated pouch about two inches proximal to the ileo-caecal valve. The terminal end of the ileum, very atrophied, was attached to the atrophied caecum; the whole of the large intestine was atrophic, although the mesocolon was well developed and the circulation to the gut good. The lumen of the big bowel was present but hard to demonstrate. Meconium was found only as far as the dilated end of the ileum.

"What probably had occurred to this infant was an accident during development. As before mentioned, the cord was abnormally short. It is possible that because of some fall or severe jar on the part of the mother during pregnancy there was a pull on the vitelline duct sufficient to rupture the embryonic midgut at the attachment of the vitelline membrane to this structure. The end of the gut became closed and full development of the small intestine to this point continued. Beyond this point development was retarded. This lack of development was not due to faulty circulation, and the suggestion is made that it was due to the fact that meconium could not enter the lumen of this part of the intestine and stimulate its development.

"No attempt was made at an ileostomy, as it was thought that this would only prolong life for awhile. Although the infant was subjected to two major operations under chloroform within sixty hours if its birth, it stood the operations well."

Dr. Buist's report was discussed by Dr. W. F. R. Phillips, as follows:

"It seems to me that the explanation of the anomaly given by Dr. Buist is the probable manner in which the deformity was brought about. In the very early stages of embryonic life the small intestine is outside of the abdominal cavity, protruding more or less as a simple loop, with the vitelline duct attached to its convexity and extending placental-wards, often into or alongside of the umbilical cord, sometimes almost to the placenta. The small embryo that I exhibit shows this relation of the vitelline duct and yolk sac to the cord and placenta.

Under such condition,—that is, at this stage of development,—it is easily conceivable that with an abnormally short cord, such as was evidently the case in the present instance, and a considerable amniotic fluid, a sudden jar or some quick movement of the mother might impart to the embryo an impetus that would cause it to make undue traction on the cord and the entangled vitelline duct to a degree beyond the safe limit of its extension, with the consequent infliction of some degree of trauma on the delicate tissues of the developing gut—enough to break or derange the continuity of the growth controlling factors of this portion of the intestine. From this injury adequate recovery not occurring, the injured section would fail to develop normally while normal growth might proceed on each side of it.

"I am inclined to think this was what happened, for as Dr. Buist has stated, and as the specimen shows, there is a small process, about the size of darning thread, which is strongly suggestive of an atrophied duct of some sort. This might well have been the vitelline duct of the fetus at the early embryonic stage when it sustained the interference, of whatever sort it may have been, that caused the defect in subsequent development. From the proximal end of this process two faint but distinct fibrous lines may be seen in the mesentery extending, one to the ileal portion, and the other to the cecal portion of the gut. The appearance is one very suggestive of what was the embryonic condition at the beginning of the involution of the vitelline duct.

"In connection with this abnormality, it is interesting to recall the work of Gaskell on the vagus nerve and its relation to the innervation of the intestine. According to Gaskell's researches, the vagus is the nerve of supply of the alimentary canal from the esophagus to the ileocecal junction. Beyond this point the nerve supply of the remainder of the gut is from the second and third sacral nerves by way of their white rami communicantes. The injury that we have supposed in the present case being just in the terminal portion of the vagus supply, we have the development of the large intestine proceeding normally; the only abnormality shown on it is the ileocecal junction which is represented by a small tumor-like mass."

3. "Two Cases of Tracheotomy"—Dr. C. W. Kollock.

"Tracheotomy is very frequently an emergency operation and it not unusually happens that the operator is taken unawares and is totally unprepared to perform the operation as it should be done, if one could have his way. One does not stop to select a special apparatus when a man is drowning but throws overboard

whatever may be at hand. While this is true, it should not tend to make us careless and indifferent to certain preparedness.

"Two rather unusual cases which occurred in my practice have made me more thoughtful about such accidents, and the report of them may be of interest and perhaps save other operators from having similar experiences.

"The tonsils of a small boy had been removed by me at an early hour of the day, and he was apparently doing well until about two o'clock in the afternoon, when he began to bleed. Examination showed a large clot in the left sinus and blood oozing steadily from beneath it. A few whiffs of chloroform made him quiet so that a gag could be introduced, and then, with a guaze sponge in a holder, an effort was made to dislodge and remove the clot. At that moment the child inspired deeply, and the clot slipped into the larynx, and breathing stopped as suddenly. Every effort to get it out failed, and as the child had not only ceased to breathe but was cyanotic, the trachea was opened almost by a single incision, the lips of the wound were held apart, and after considerable manipulation respiration was started, and soon the child was in good condition. In the meantime, the clot had slipped out of the larynx and was removed from the mouth. Recovery followed without further complications.

"Such an accident would hardly have been anticipated, as most every laryngologist has frequently had to remove clots of blood from sinuses after tonsil operations, and I venture to say that not one has ever thought that the clot might slip into the larynx and cause serious complications.

"The second case was one of postpharyngeal abscess in a child of two or three years of age. It was difficult to see and it was necessary to guide the knife by the forefinger. As soon as the incision was made, the child was quickly turned with its face down so that the pus would not flow into the larynx, but, in spite of this precaution, it stopped breathing and was apparently dead. No knife was available but that with which the incision of the abscess had been made, and there was only time to wipe it off and open the trachea with it. After some time, respiration was established, a tube inserted, and the child made a good recovery.

"The lesson to be learned from these two cases is that, when any operation is to be performed about the throat, it is wise to have a tracheotomy case, thoroughly sterilized and ready for immediate use, one can never tell when it may be wanted, and lives may be saved by being prepared."

4. "Two Cases of Gall Bladder Examination by X-Ray"—Dr. A. R. Taft.

"Case No. 1. A stout lady who showed a cir-

cular shadow about 2cm in diameter with rarefaction in middle, correctly interpreted as a calculus. This large calculus and several smaller ones removed from the same gall bladder were put in a jar of water of same thickness as patient's abdomen, and X-Ray film was made. The fact that these cast only a slight shadow shows that they may be easily missed.

"Case No. 2. White woman in Roper Hospital, attempt being made to show gall bladder by method of Graham and Cole. Sodiumtertambromphenolphthalein prepared especially for the purpose was gotten from Mallinckrodt: 5 gm dissolved in 40 cc distilled water by Department of Pharmacology. Twenty cc of this was injected into vein, and a slight nausea and faintness indicated that the second dose should not be given at the end of a half hour as the technique was supposed to be, but should be delayed for another half hour. The second dose was followed in about 45 minutes with severe collapse, imperceptible blood pressure and unconsciousness. It was only by powerful and continued stimulation that the patient was saved. Films taken at the end of eight (8) hours showed a light gall bladder shadow.

"In conclusion, after seeing the dangerous depression that followed this injection, we believe that it may have some use in medicine,

but in its present condition, it is not suited to routine practice."

Under "Case Reports and Exhibition of Specimens," Dr. Edward H. Sparkman of the United States Navy reported a case of Thrombosis of the Femoral Artery. The patient was a man, 41 years of age, who had been admitted to the Naval Hospital, twenty days ago. Six weeks before he had had symptoms of numbness, tingling, and intermittent claudication. The day before entering the hospital, he suddenly had a feeling of weakness in the leg, the leg went to sleep, and the patient collapsed. He was brought to the hospital and was seen by Dr. Sparkman twenty-four hours later. The usual treatment of warmth and elevation was done. Four days later signs of beginning gangrene were evident. The thigh was then removed just below the big trochanter. Femoral artery was found to contain large clot.

In discussing this case, Dr. Buist pointed that it was remarkable how well some patients got along after having their femoral arteries tied. He stated that he had tied the femoral and iliac arteries with no untoward symptoms.

The report was also discussed by Drs. D. L. Maguire, B. R. Taft, and Dyril O'driscoll, Dr. Sparkman closing.

W. Atmar Smith, M. D.,
Secretary.

BOOK REVIEWS

ABT'S PEDIATRICS. By 150 specialists. Edited by Isaac A. Abt, M. D., Professor of Diseases of Children, Northwestern University Medical School, Chicago. Set complete in eight Octavo volumes totaling 8000 pages with 1500 illustrations, and separate Index Volume free. Now ready—Volume VI containing 736 pages with 127 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$10.00 per volume. Sold by Subscription.

This volume merits the same favorable comments already accorded the five preceding volumes.

DIET IN HEALTH AND DISEASE. By Julius Friedenwald, M. D., Professor of Gastro-Enterology in the University of Maryland School of Medicine, Baltimore; and John Ruhrah, M. D., Professor of Diseases of Children in the University of Maryland, Baltimore. Sixth edition, thoroughly revised. Octavo of 987 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.00 net. This book has been an authority for many years and a valuable text-book for medical students. There are a large number of additions of diet tables and especially an admirable write up of diabetes and diabetic food. Infant feeding has been rather extensively treated, also.

PERSONAL HYGIENE APPLIED. By Jessie Feiring Williams, M. D. Professor of Physical Education, Teachers College, Columbia University, New York City. Second edition revised. 12mo of 414 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$2.00 net.

DISEASES OF CHILDREN FOR NURSES. Including Pediatric Nursing, Infant Feeding, Therapeutic Measures Employed in Childhood, Treatment for Emergencies, Prophylaxis and Hygiene. By Robert S. McCombs, M. D., Associate in Medicine at the Philadelphia Polyclinic; Instructor of Nurses at the Children's Hospital of Philadelphia. Fifth Edition, Thoroughly Revised. Octavo of 581 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$2.75 net.

THE PHYSIOLOGY OF MIND. An Interpretation Based on Biological, Morphological, Physical and Chemical Considerations. By Francis X. Dercum, M. D., Professor of Nervous and Mental Diseases in the Jefferson Medical College, Philadelphia. Second edition, Reset. 12mo of 287 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$3.50 net.

THE SURGICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month). Volume IV, Number VI (Clinic of Frank H. Lahey, M. D., Boston, Mass. December, 1924), 166 pages with 43 illustrations, and complete index to Volume IV. Per clinic year (February, 1924, to December, 1924). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

PRINCIPLES OF SURGERY FOR NURSES. By M. S. Woolf, M. A., B. Sc., M. R. C. S. (Eng.) L. R. C. P. (London), Instructor in Surgery, University of California Hospital, San Francisco. 12mo of 350 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$3.00 net.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every month). Volume VIII Number IV, (Mayo Clinic Number, January, 1925). Octavo of 374 pages with 66 illustrations Per clinic year (July 1924 to May 1925). Paper \$12.00; Cloth \$16.00; Philadelphia and London: W. B. Saunders Company.

THE SURGICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month.) Volume V, Number I (New York Number—February 1925). 294 pages with 142 illustrations. Per clinic year (February 1925 to December, 1925). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued Serially, one number every other month.) Volume VIII, Number V, March, 1925. (Boston Number.) Octavo of 247 pages and 21 illustrations. Per Clinic year (July, 1924 to May, 1925.) Paper \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

PERMANENT SUPPRESSION OF DIPLOMA MILLS

The recent exposure of several diploma mills and the securing of definite evidence of their fraudulent nature has unfortunately not been promptly followed by their closure through legal process. The licenses of many persons to whom diplomas were sold have been revoked, but the machines still remain intact, ready for operation as soon as the present upheaval blows over. A recent report states that the charter of a pseudomedical institution bearing the high sounding title of the "American University of Sanipractic" has just been revoked at Seattle. This perhaps may encourage the authorities in Missouri to close the institutions selling medical diplomas in that state. Closing, however, will not prevent forever their flooding the country with counterfeit degrees, since as soon as one charter is revoked another can so easily be obtained. Perhaps the best method of suppressing such institutions in the future would be to prevent them from obtaining charters in the first place. It would seem that any group of persons, or even of conscienceless impostors, by paying a small fee, can secure a charter giving them authority to issue any and all kinds of diplomas, no questions being asked as to whether the institution is equipped, either educationally or financially, to furnish the education usually required. Furthermore, no legal check is kept on those securing charters to ascertain whether the educational institution has been actually established or whether it only has an office and is selling diplomas with or without a pretense at a course of instruction to cover up its irregular practices. By supervising the chartering of all schools and colleges, not only will the periodic scandals from the sale of diplomas be prevented, but also a lot of other so-called "schools," "colleges" and "universities" will cease to be born. One such institution, the Oriental University, made a pretense at "home study courses" and covered up its actual barter in degrees for a quarter of a century before its charter was revoked. The medical profession prevented it from selling medical diplomas and manufacturing

bogus doctors in the United States, so it had to carry on its barter in such degrees in other countries. Because of the failure to safeguard the chartering of educational institutions, the United States has more of these worthless, fly-by-night "colleges" and "universities" than all other countries put together. Is it not time that our boasted freedom should cease to permit uneducated fakers to secure fabulous profits from the teaching of hocus pocus at tuition fees higher than are charged by the best medical schools? By reasonable safeguards over the chartering of educational institutions and a routine check on those which are chartered, much of this counterfeiting of diplomas would be prevented and the subsequent necessity of revoking licenses and of canceling charters would be unnecessary.—*Jour. A. M. A.*, May 2, 1925.

CLASSIFICATIONS AND APPROVED LISTS OF COLLEGES

The control of education in this country comes under the police powers of the several states. In the absence of safeguards over the chartering of educational institutions in all but a few states, thousands of colleges have been established, ranging from some of the highest type down to those which are diploma mills. Until about 1900, conditions were growing worse rather than better. In an attempt to improve the situation, the associations representing professions or groups of colleges established minimum standards of proficiency, and listed as approved such colleges as met those standards. Then in 1906-1907, the American Medical Association, through its Council on Medical Education, prepared a classification of medical colleges. At about the same time, between 1906 and 1908, the Carnegie Foundation for Advancement of Teaching prepared a list of colleges and universities in connection with its pension fund for university professors. In 1910, the Carnegie list and certain other colleges were placed by the Association of American Universities in a list of colleges whose graduates were recommended to the Prussian minister of education for matriculation in graduate courses in German universi-

ties. In 1911, Dr. Kendrick C. Balcock, specialist in higher education of the United States Bureau of Education, inspected most of the colleges of the United States and classified them in four groups. In 1923, the North Central Association of Colleges and Secondary Schools published its first list of approved colleges. A similar list was published by the Association of Colleges and Secondary Schools of the Southern States in 1920; by the Association of Colleges and Preparatory Schools of the Middle States and Maryland in 1921, and by the Northwest Association of Secondary and Higher Schools in 1922. Classifications of law and dental schools have also been prepared by the American Bar Association and the Dental Educational Council of America, aided in both instances by the Carnegie Foundation. These approved lists established a line of demarcation between colleges worthy of approval and those of inferior quality, including some that were actually fraudulent. These lists have been not only of great value to the student and various agencies needing information regarding the approved colleges, but also a powerful factor in the securing of further improvement, since colleges in lower classifications or which were not eligible for the approved lists were encouraged to make such improvements as were necessary to secure admission to those lists. These associations made no claim of legal authority over the colleges but asked the colleges officials for their cooperation in securing exact data whereby the conditions in all colleges might be determined. A standard based on average conditions was then prepared, that the conditions in each institution might be compared with this standard. An interesting fact noted in these investigations has been the invariable courtesy extended by the officials of deserving colleges, their promptness in furnishing all needed data, and their readiness to receive, or actually to request, suggestions with regard to further improvements. The results of the work have established the fact that voluntary cooperation is far better than demands based on legal authority since, in the former, college officials do not stop improvements at minimum standards but go as much farther as they

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can. The approved lists were of greater reliability because they were prepared by the agencies best qualified to speak with authority with regard to the colleges concerned. Who, for example, is better qualified to speak regarding colleges and universities than the men selected by the associations of colleges and secondary schools? Who is more expert regarding law schools than the professors of legal education selected by the American Bar Association? So also, those in the best position to interpret the intricate problems of medical education are the physicians and medical educators cooperating with the American Medical Association. In a democracy such as the United States, with its fifty separate states, when the governing agencies fail to function, no agencies are better qualified to render voluntarily the needed service than the organizations that have so effectively separated the wheat from the chaff among the educational institutions in this country.—*Jour. A. M. A.*, May 2, 1925.

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of the

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EDITORIAL

A. M. A. NOTES

The nineteen hundred twenty-five meeting of the American Medical Association at Atlantic City, New Jersey while not as large from the point of view of attendance as the meeting in Chicago last year, the scientific aspects left little to be desired. The attendance approximated five thousand. All of the sections functioned admirably. The scientific exhibits are growing each year to be more fully appreciated. We can recall not many years ago when comparatively few doctors visited these exhibits, and they were not placed in very prominent positions. All of this has been changed as if by magic. Thousands visit them daily. The location is conducive to this enlarged attendance. Perhaps a leading feature is the fact that the exhibits are in charge in many instances of men of international fame to explain them. The work of the House of Delegates was marked by harmony, and con-

structive vision. Great impetus was given in the House of Delegates to periodic health examinations, and also by President Haggard in his address. It is clear that this work must be done by the general practitioner, and not left to commercial enterprises. We are very proud of the fact that the South Carolina Medical Association has already taken advanced steps along this line. Among the South Carolina doctors present at the A. M. A. meeting were the following:

Bates, Chas. O., Greenville.
Brockman, Leroy, Greer.
Brockman, William Thos., Greer.
Fouche, Jas. S., Columbia.
Hayne, James A., Columbia.
Lemmon, Chas. J., Sumter.
McLeod, F. H., Florence.
Parker, John W., Greenville.
Routh, Foster M., Columbia.
Sharpe, Thos. G., Greenville.
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Hines, E. A., Seneca.
 Mike^l, Pinkney V., Columbia.
 Shaw, Arthur E., Columbia.
 Taft, A. Robert, Charleston.
 Finney, Roy P., Gaffney.
 Jervey, J. W., Greenville.
 Ravenel, James J., Charleston.
 Sheridan, William M., Spartanburg.

STATE ASSOCIATION ACCORDED TWO DELEGATES TO A. M. A.

At the meeting of the American Medical Association held at Atlantic City May 25-29, 1925 by virtue of an amendment to the constitution of the A. M. A. whereby the representation in the House of Delegates may be increased from one hundred and fifty to one hundred and seventy-five, and The South Carolina Medical Association, having increased its enrollment to nine hundred and fifty-three members, under the reapportionment by the A. M. A. the South Carolina Medical Association will be entitled to an additional delegate.

South Carolina was one of the first states in the Union to recognize the great advantage of sending the Secretary as a delegate continuously to the A. M. A. This policy is now followed by a large number of other states. This continuity of contact is conceded by all organizations as being necessary to cement personal and official friendships which count for so much in recognition for appointment on important committees.

South Carolina has been most fortunate in having a delegate for fifteen years who has been honored by appointments every year, and often the chairmanship has fallen to his lot. He served this year as Chairman of the Reference Committee on the Reapportionment of Delegates. It is readily appreciated that an additional delegate is highly desirable. Measures often come up where a consultation of

state delegates may aid very materially in deciding prominent issues. The new delegate will be elected at the Sumter session in 1926 by the House of Delegates. We believe the Association should give careful thought to the selection of this delegate. He should be a man thoroughly conversant with the problems of organized medicine. He should have a good knowledge of parliamentary procedure. He should have a personality capable of making a favorable impression for his state. He should be willing to forego very largely the scientific program inasmuch as the work of the House of Delegates of the A. M. A. requires the major interest of the delegate. Lastly, he should be willing to serve the state medical association in this capacity for many years as outlined above.

The American Medical Association being the world's greatest medical organization has developed such gigantic interests that no one can compass them understandingly without prolonged study and opportunities for service.

SOUTH CAROLINA BIRTH REGISTRATION URGENT NECESSITY

The Bureau of Vital Statistics of the State Board of Health is appealing to every doctor in the state for immediate co-operation in the matter of recording every birth promptly. Unless this is done at once the state will be removed from the registration area, and our reputation as a progressive state in all matters of public health will suffer thereby. We have never yet asked the profession of South Carolina in vain for assistance. We are confident that the appeals being sent out to the individual physicians and to all of the constituent county societies will be acted upon promptly. The government has consented to recheck the state in September. Let us see to it that nothing is left undone to satisfy the requirements.

ORIGINAL ARTICLES

CANCER AS VIEWED BY THE ANCIENTS

By J. H. Taylor, M. D., F. A. C. S., Columbia, S. C.

I ANCIENT EGYPT

In the oldest book we have on Egyptian Medical practice, the "Papyrus Ebers", circa 1550 B. C., cancer is mentioned and in columns 68 to 69 a number of remedies are recommended. The lack of thorough physiological and anatomical knowledge at that day made it impossible to give an accurate description of the disease. Cancer at that time was a term used to cover every swelling.

Ulcerous cancer was treated by the ancient Egyptians with a salve consisting mainly of arsenic and vinegar and it was in use down to the 16th century under the name Egyptian Ointment. Fabricius Hildenus removed it from the list of medicines.

In a late cuneiform inscription found in the library of ancient Ninevah (800 B. C.) carcinoma of the breast is mentioned, according to Oefele the medical historian.

II ANCIENT INDIA

The ancient healers of India were the first to attempt a systematic account of diseases. They knew little of anatomy, but in diagnosis and therapeutics and especially in surgery, they rendered remarkable service.

In the very oldest Hindu work (Ramajana about 2000 B. C.) mention is made of the extirpation of neoplasms and at the same time Egyptian ointment was used as a prevention of relapses.

Hindu medical activity attained its highest successes during the centuries 800 B. C. down to 500 B. C. Their principal work was the Ayurveda of Susruta (5 books with 120 chap-

ters). In the 4th book, chapters I and II ulcers are treated and 15 or 16 different kinds are distinguished.

The Hindus adopted a pathology based on the humors, air, bile and mucus, which they thought produced the diseases.

Ulcerous swellings were treated with a decoction of cassia and neoplasms with an arsenic salve which, according to Wise, was made of iron, rock salt and red arsenic. Even at this time red hot iron was used in the extirpation of ulcers.

III GREECE

1. Age before Hippocrates.

(Homer to Hippocrates 960 to 460 B. C.)

The scientific tendency in medicine started with the Greeks. Archilochus (719-633 B. C.) mentions a tumor on the thigh.

Noteworthy in this epoch is the story of Democedes (520 B. C.) who was carried as a slave to the Persian court of Darius Hystaspis at Susa and healed the king of an injured foot and his wife Atossa, daughter of Cyrus, of carcinoma of the breast.

The first man to free medical practice from the web of mysticism and speculation and commence a system built upon observation and experience was

2. Hippocrates (460 to 375 B. C.)

In a period of about 200 years there were seven of the followers of Aesculapius who bore this name. The sixth in this list was the great Hippocrates who was born about 460 B. C. on the island of Cos and died at Larissa (Thessaly) in the year 375 B. C.

In his numerous writings he frequently mentions cancer. He was the first to use the terms cancer (crab) and carcinoma (an eating sore). The first term, cancer (crab) he used for all sorts of non-healing ulcers, and the second, carcinoma (eating sore) only for malignant, non-healing cancer. His pathology was built upon the theory that all diseases were caused by *blood*, *mucus* or black and yellow gall, ac-

cording as there is a lack or excess of these humors in the body.

He mentions the case of malignant cancer in the throat of a man which he healed by burning. He was also acquainted with cancer of the internal organs. In one of his writings on the "Diseases of Women" he describes the scirrhus induration of the cervix uteri and less completely cancer of the breast. He writes: "In the breast hard lumps are formed and do not fester but become harder and harder and result in hidden cancer". He seems also to have known cancer of the stomach which he appears to describe under the term "black vomit".

As to the prognosis he stresses the importance of early treatment.

He recommends the Carian Medicament, consisting of black hellebore, sandarac, copper splinters (shavings), heated lead, sulphur, arsenic and Spanish fly.

An age of speculation and skepticism turned the successors of Hippocrates away from the empirical method, which, however was later revived and brought into use. We note here merely two names. Serapion of Alexandria, 270 B. C. used sulphur in cases of skin disease, and Heraclides of Tarentum, used opium in cases of cramp.

IV ROME

The seat of Medical activity is transferred from Greece to Rome.

M. Porcius Cato in his work on agriculture (*De re rustica*) refers to three kinds of cabbage which may be used in cases of cancer (234-149 B. C.)

It is noteworthy that we have in these early Latin writings cancer, and carcinoma used for the Hippocratic terms of similar import.

We note also Cato's division into three kinds of cancer: black cancer; white cancer; fistulous cancer.

The practice of medicine came to occupy a settled place in the civilization of Rome under the influence of *Asclepiades* (128-56 B. C.) who founded the school of methodists and who pushed to one side the pathology of the humors, and insisted on the influence of solids in the production of diseases (Solid pathol-

ogy). All symptoms and clinical conditions were said to arise from the wrong mixing and the resultant forms of solid matter. He did not pay especial attention to cancer.

Aulus Cornelius Celsus (30 B. C.-38 A. D.)

Master of all the learning of his day, he wrote eight books on medicine (*De Medicina*) and is of interest to us though his want of anatomical information was evident. He believed that the *arteries* were filled with *air* and he made no distinction between the nerves and the sinews.

Down to Celsus the term carcinoma was used for all sorts of swellings and tumors, he circumscribed the term in an effort at delimitation. He says: "It develops as a faulty formation especially in the upper portions of the body about the face, nose, ears, lips, and breasts of women—and frequently becomes an open sore. Generally it starts with what the Greeks call *cacoethes*, 'a bad growth', then from this it turns into a carcinoma without ulcer, then it becomes an ulcer and then an open ulcer."

Celsus used the term cancer to indicate different forms of mortification or gangrene and did not consider it so malignant as carcinoma.

He distinguished the following different kinds of cancer:

1. The ulcer which is only an induration or scirrhus.
2. The Carcinoma without an open sore—hidden cancer or occult cancer.
3. Open sore (*Cancer apertus*).

Celsus was the first to describe the lumpy nature of cancer as an important diagnostic sign, and he distinguishes cancer from a number of different kinds of swelling and tumor. He knew of the swelling of the axillary glands in cancer of the breast and also cancer of the liver and spleen.

In prognosis he considered only the so called "bad growth" as favorable. He writes: "Nothing can be got rid of but *cacoethes*, or bad growth, the rest are irritated by remedies and the more force is employed the greater does the trouble become".

Therapeutic tests, according to Celsus, determine the diagnosis of carcinoma. He says: "Some use caustic medicine, some burn with

a hot iron, some make an incision with a knife. No treatment proves effectual, but the burnt spot continues to be irritated and to spread until they use the knife; and even then after the scar is healed the trouble returns and becomes the cause of death. But to distinguish the *cacoethes* (bad growth) which is susceptible of a cure before it reaches the carcinoma stage is impossible except by the use of time and experiment."

Accordingly we see that Celsus is a decided *pessimist* as regards the *therapeutics of true carcinoma*. Nevertheless he favors operation in the less severe forms of cancer, for example, lip cancer.

Celsus was acquainted with the vessel ligation and the suture, which were unknown to Hippocrates. Celsus extirpated mamma-carcinoma but he never allowed the excision of the *pectoralis major*.

Of his contemporaries Pliny the Younger writes of the inner therapeutics of cancer and mentions treatment. The principal remedies used were plants of the cabbage kind and figs. *Actius reports from Archigenes* (54-117 A. D.) the following: "Cancerous tumors most frequently arise about the mamma and they attack *women* more than men, and especially those women who have large fleshy breasts;—the term 'Cancerous' is taken from the living animal (crab) which, if it takes hold of anything with its claws, is hard to be pulled off." This was the general idea of cancer down to and into the 18th century. He further says: "There are two special differences in cancers. Some are without ulcer, called *occult*; and some with the ulcer. But *Philoxenus* calls those occult cancers which are entirely removed from sight, as in the *uterus* and in the *intestines*."

Here we learn for the first time in history that cancer of the uterus and of the intestines was known to the ancients, although they made no accurate investigations of it as they did not make dissections of human beings.

Archigenes also describes the vein network that extends from a cancer with its roots and hardness. He knew well the swelling of the axillary glands and the spreading pain. The "medicament of Archigenes for ulcerous can-

cers" was still used in the 16th century. (It consisted of wax, turpentine, beef tallow, deer heart, oil of rose, goose fat, honey, Frankincense, three parts sweat of sheep's wool. (Lanolin).

We mention briefly *Soranus of Ephesus* (98-117 A. D.) the celebrated physician for diseases of women. He lived under the Emperor Trajan. He was acquainted with the uterine speculum; though he seldom refers in his writings to carcinoma of the genitalia.

Rufus of Ephesus lived at this time and was the first to describe a *melanotic* cancer. He describes a kind of cancer looking like a large wart or fig. He was indisposed to operations.

Next we note a great medical authority who rose to supremacy in ancient times and influenced the theory and practice of medicine for a thousand years. *Claudius Galenus* (131-203 A. D.) the private physician of the young Commodus. He wrote 500 books, was the founder of *experimental physiology* and *pathology*, though he drew his knowledge of anatomy from the dissection of animals, especially hogs and monkeys.

He applied the principles established by Hippocrates but gave them a wider range. He held that the spirit controls the body and that the latter is formed of the firm matter and four humors, as with Hippocrates. This spirit works in three forms, the brain, the heart and liver. The cardinal humors were blood, mucus, yellow and black gall, which lie at the foundation of his theory of pathology. The mixing, quantity, displacing and action of these humors determine health and sickness.

He considered black gall, formed in the spleen, as the cause of cancer, and this theory continued to be held down to and into the 18th century.

Cancer, he considered as a malignant tumor caused by the entrance of particles of itch and leprosy, into the arteries and fleshy soft parts of the body, aided by the hardening of black gall. Carcinoma is a malignant, very hard non-ulcerous swelling or tumor. Black gall, he thought, was formed from humor melancholicus and hence melancholy women are more susceptible to cancer.

He emphasized the importance of early

diagnosis, but here he can go no farther than the probability, and has to depend on the course of the disease for certitude.

He did not know cancer of the internal organs, though writers before him presumed the fact theoretically. He considered occult cancer as the only curable form. "Accordingly," says he, "it is important to apply a remedy to the incipient malady before it should become thoroughly fixed in the system." He applied internal and external treatment. First he gave a purgative of aloes bitter principles of entrails, rhubarb and cassia. He also used "theriak" and "mithradates" (composed of 70 and 54 substances respectively) and also had his patients to drink goose blood—the old popular remedy. He also prescribed a special diet and forbade the use of those things which he thought favored the production of black gall. Forbidden were: (strong) wine, vinegar, cabbage, old cheese, highly seasoned meat, corned meat, goat, deer and rabbit meat and walnuts. He furthermore caused his patients to undergo fasts and sought to preserve them from mental excitement. Special diets were, barley broth, vegetables, milk, kid and veal, poultry, -fish that were found at the foot of sea cliffs and light wines.

The external treatment consisted of bleeding and the use of a hot iron. He did not hesitate to use the operating knife, as in cancer of the breast, which he followed up by pressing the veins out (as was then customary) and cauterising the wound, attaining good success as he claimed. He also claims successes by purgatives alone! He depended mainly on the internal treatment as he regarded cancer as a disease of the system (a constitutional disease). He applied various salves along with other treatment. In occult cancer he used poultices made of bread and ash leaves. To lessen pain a salve made of poppy heads was used. Papaver, psyllium, dates and oesypus (sweat of sheep wool—one of the cosmetics of Roman women) were drugs used.

Leonides of Alexandria (about 180 A. D.) rendered service in the diagnosis and therapeutics of cancer. He lived in the time of M. Aurelius of Commodus.

He differentiated the sebaceous cysts and

the lipomas from cancer. He was the first to define and describe the scirrhus in cases of cancer and noted their lack of blood and called attention to the solitary breast wart of breast cancer.

The warning of Hippocrates not to operate on ulcerous cancer made men timid for centuries about major operations. Leonides was bold in operating on breast cancer and followed with the hot iron to finish the destruction of the diseased tissue and to control bleeding. Leonides used a thoroughly rational method of operating and observed the indication for the operation. So his work marks progress.

In the West progress ceased in art and science with the fall of the empire. We now turn to the East.

The Byzantine Period marks the time of compilation of medical writings. *Oribasius* (325-403 A. D.) physician to Emperor Julian, the Apostate, 361-363 A. D. and died at Constantinople 403 A. D.

In a passage of his writings he mentions a *fermenting* substance as the cause of cancer. He refers to an acidity which ulcerating cancer is said to produce. He follows Galen in the use of arsenic and sandarac. *Aetius of Amida* (502-575 A. D.) physician of the Emperor Justinian, made a medical collection and compendium of the older writers except Hippocrates.

He gives a good description of a uterine cancer to which Waldeyer calls attention. This, however, is a description which he says he copied from *Archigenes*.

Alexander of Tralles (525-605 A. D.) treated mostly internal diseases and rendered much excellent service (Phthisis, worms, etc.) In regard to cancer he followed the theory of his predecessor, who taught the pathology of the humors. In cancer of the liver he recommended drinks impregnated with iron.

Paulus of Aegina (625-690 A. D.) was acquainted with internal as well as external cancer, and says it can appear in any part of the body. He favored operation especially on breast cancer, but opposed it in other cases.

With him the classical period closes. Die Lehre von der Krebskrankheit

Dr. Jacob Wolff, Berlin.
(*The History of Cancer*, by Dr. Jacob Wolff, Berlin). Translated from the German into English by Dr. Geo. W. Manly, M. A., PhD. (Leipsic 1886).

GRADING TUMOR MALIGNANCY

By Dr. F. H. Dieterich, Professor of Pathology Medical College of the State of South Carolina, Charleston, S. C.

Last summer I enjoyed the advantage of spending two months at the Mayo Clinic studying their laboratory methods and the large amount of surgical pathological material, which is examined there for diagnosis. Dr. Broadus, of that institution, is an ardent advocate of a scheme of grading tumor malignancy in which I believe you will find much of interest, as well as of practical value.

It is common knowledge, from a clinical as well as a pathological standpoint, that tumors are either benign or malignant. You know for example a fibroma or a wart can exist on a patient's back many years and never show any tendency to spread or metastasize, we call these, therefore, benign tumors. All malignant tumors, on the other hand are not of equal malignancy. A rodent ulcer on the forehead has nowhere near the malignancy that squamous epithelioma of the cervix manifests. These are malignant new growths from different parts of the body, but this difference in degree of malignancy is also shown by tumors from the same region of the body, arising from similar structures. This is best shown by the squamous epithelioma of the urinary bladder and I shall use this tumor to illustrate the principles of grading. Bear in mind other tumors, though to date not all, can be graded on the same principles, but so much excellent work has been done on this very type, with follow up statistics, that it will serve our present purpose best.

On just what does the grading of malignant neoplasmata depend? We can sum up the answer with the words "on cellular differen-

tiation." This necessitates a careful microscopical study of a piece of the tumor removed; in other words a biopsy is performed, examining the removed tissue microscopically.

May I be permitted to give you a rather elementary discussion to make clear just what we mean by cell differentiation? If we take as a starting point the simple unicellular ovum and trace it through its development into the morulla and gastrula stages, and then beyond through its various buddings and anlagen and invaginations, up to the completed individual, we can see that the underlying principle of it all is differentiation of cells, best adapting them to the functions they are to perform. It is no less than a development of evolution of the mature multicellular individual from the unicellular ovum. This differentiation is seen not only in the several varieties of tissue, but is well recognized in individual types. Connective tissue, for example, is differentiated to give form and firmness, hence the skeletal system; then again where smoothness and cushion-like elasticity is desired the ends of the bones are covered with the highly specialized, or differentiated, cartilage. This point of differentiation is also seen in epithelium, some is differentiated into a simple protective covering, other types have secretory activities, some are combinations of these. The degree of differentiation of the type of epithelium composing the tumor we are studying, knowing the normal epithelial structure from which the growth originated, determines the grade of malignancy. If for example, a tumor from the skin shows the growth to be chiefly composed of squamous cells, with much keratinization (both evidences of differentiation into the adult type of cutaneous covering) we would consider this of low grade malignancy. If, on the other hand, there is no evidence of this approach to the adult form of tissue, but the new growth is composed of closely packed cells, with very little, if any keratin, we would be inclined to place it in a higher grade of malignancy. The presence of many mitotic figures, particularly of the abnormal types, in a tumor will serve to place it in a grade of higher malignancy as will also the finding of many cells with large hyperchromatic nuclei.

Arbitrarily we grade tumor malignancy as follows:

Grade 1. Three-fourths of the tumor shows differentiation of its cellular component and one-fourth is undifferentiated.

Grade 2. The differentiated and undifferentiated elements are in equal portion.

Grade 3. Three-fourths undifferentiated and one-fourth differentiated.

Grade 4. No evidence, or very little, of differentiation.

These are approximate values only.

It requires a thorough knowledge of normal histology and cytology to properly weigh the evidence before one is competent to grade neoplasms.

There are certain gross features of a tumor, such as the bladder epitheliomas exhibit, which may aid in the grading, but these criteria are not as reliable as the microscopical evidences of differentiation. These features are ulceration, infiltration of the surrounding tissues, and development of papillae, growing like a cauliflower into the lumen of the viscus. The age of the patient is also of value, but none of these is used in this scheme of grading the tumor.

I can best illustrate these points, and drive the essentials of my discourse home, by showing you several lantern slides I had prepared for this morning.

Of what practical value is this? I can see two distinct advantages:

1. We can offer our patients a more accurate prognosis. This in itself would be of sufficient value to make the method worth while.

2. We can also be guided as to the extent and nature of our treatment, by this means.

To illustrate—in the first and second degree squamous epitheliomas of the bladder treatment is by fulguration. Experience has shown that these can be thus conservatively removed and practically no metastases develop. Occasionally one of these low grade papillary squamous epitheliomas may be too large to remove this way. Also occasionally they may recur locally, but then they can be removed again by this rather simple method. The incidence of recurrence after fulguration of the low grade bladder epithelioma, I just mention-

ed, is no greater than after radical surgery. The third and fourth degree tumors, of this type, are treated by radical excision. You can see then that we can spare our patients a severe mutilating operation by at first grading the tumor at biopsy, removing a piece by the cystoscope.

The method is still new. It has not been applied to all tumors as yet, but bids fair to be one more step forward in diagnosis and treatment of a condition whose etiology even today is veiled in obscurity.

ACUTE PANCREATITIS

By Irvin Abell, M. D., F. A. C. S., Louisville, Ky.

In an experience embracing more than 900 operations on the biliary tract the writer has encountered eight cases of acute pancreatitis. All occurred in the course of more or less prolonged cholecystitis, presenting varying degrees of gall-bladder pathology. The term "acute pancreatitis", as here employed, covers at least three distinct conditions, acute pancreatic necrosis, acute hemorrhagic pancreatitis and pancreatic abscess. It is believed that the latter is but an advanced stage of the first two, the patient surviving the acute onset with subsequent infection and suppuration of damaged pancreatic tissue and hemorrhagic deposit resulting in abscess formation.

Of the eight cases, four occurred in men, and four in women: four were markedly obese, one moderately so, two were of muscular development and one quite emaciated. The average age of the patients was forty-seven years, the individual ages being 32, 34, 39, 50, 51, 51, 54 and 64.

Previous History

Four of the eight patients had had typhoid fever and all gave a definite history of gall-bladder disease. Duration of symptoms referable to gall-bladder: two cases, 1 year; two

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cases, 2 years; one case, 3 years; one case, 6 years; one case 8 years and one case, 20 years; average 5 years, 4 months. Six gave a history of gall-bladder colics while in the remaining two the colic that occurred with the onset of the pancreatitis was the initial one. All had suffered digestive disturbances for varying periods of time. One had undergone an operation for removal of stones and drainage of gall-bladder six years before coming under my care, at which time he presented a second crop of calculi in his gall-bladder with an acute hemorrhagic pancreatitis.

Symptoms referable to acute involvement of pancreas

Durations, three, three days; one, four days; two five days; one, seven days and one, ten days. In six the symptoms attracting attention to the pancreas developed at periods varying from one to four weeks following a gall-bladder colic, there being a subsidence of pain and other subjective symptoms referable to the gall-bladder before onset of those referable to pancreas or else a continuation of gall-bladder symptoms with those of pancreas gaining in intensity and consequent ascendancy. In two the pain accompanying the onset of the pancreatitis was the initial one, the previous symptoms being of reflex digestive character of mild degree.

Pains. The pain in five was acute, severe and agonizing, accompanied by incessant nausea and vomiting, representing the ultra acute type; in three it was much less severe, the cases pursuing a milder course. In four it was referred to the epigastrium and right subcostal region, being described as similar to that experienced with previous attacks of gall-bladder colic: in two it was felt in the right subcostal region, extending across the upper abdomen to the left subcostal area: in two the maximum intensity was noted in the left subcostal area. Cyanosis was observed in but one. The pulse in three was under 100, 88, 90 and 96: in five over 100, 110, 115, 120, 138 and 140. Temperature varied from 99.5 to 102. Systolic blood pressure from 100 to 154. Considering the pathology found at operation the leucocyte counts were not high, 5300, 6800, 9800, 11800, 12700, 13300, 15300, 18800.

Such blood findings are in harmony with the belief that the extensive destruction of pancreatic tissue is due to an activation of the trypsinogen within the pancreas rather than to actual bacterial attack.

Urine. The urine in all cases showed the presence of albumen; none showed the presence of sugar. Bile was present in four, casts in three, microscopic blood in six and microscopic pus in seven.

Mass. In four patients no mass was detected while in the remaining four an enlargement was distinctly palpable: in two the mass was felt in the right hypochondrium, in one in the left hypochondrium and in one it extended transversely across the abdomen.

Pre-operative Diagnosis. The diagnosis in four was acute cholecystitis; in one of these the detection of a mass at the site of the pancreas after the patient was anesthetized led to a correct diagnosis before the incision was made. In one the condition was thought to be acute intestinal obstruction and in the remaining three a correct diagnosis of acute pancreatitis was made.

Morbid Anatomy. Free fluid was found in the greater peritoneal cavity in two cases, in one of which it was bile tinged and of large quantity: hemorrhagic fluid exudate was present in the lesser peritoneal cavity in six instances varying in amount from a few to 2600 c. c.

Rather widely disseminated areas of fat necrosis were encountered in three and none detected in five. The gall-bladders were visibly diseased in all eight cases and each contained calculi: the common ducts of all upon palpation were negative for stones.

In three the pancreatic lesion presented as a hemorrhagic pancreatitis, in two the hemorrhagic infiltration being confined to the pancreas and tissues immediately adjacent; in one of moderate size, in the other of such extent as to form an oblong mass across the abdomen which was palpable through a rather thick wall: in the third the infiltration involved not only the pancreas but extended into the subhepatic and right perirenal spaces and into and behind the ascending mesocolon as far as the cecum. In one case the pancreas was en-

larged to approximately four times the normal size, nodular and elastic, bile-tinged fluid in lesser and greater cavities, thickening and edema of gastrohepatic omentum and pancreatic fatty capsule, all of which bled on manipulation although no visible hemorrhagic deposit was present.

One presented a moderate increase in size of head and right half of body with marked enlargement of left half of body and tail, the mass involving the gastric surface of spleen, the lesser peritoneal cavity and the transverse mesocolon: no visible hemorrhagic deposit present.

In one, the head of the pancreas was markedly enlarged and at operation was thought to be a subacute pancreatitis accompanying an acute cholecystitis: the patient died nine days after operation and autopsy revealed acute pancreatic necrosis involving the head and part of the body of pancreas.

In one, the lesion presented as a retroperitoneal pancreatic abscess holding six ounces of pus in which were flocculi, caseous masses and bits of sloughing pancreatic tissue. Cultures from pus showed colon bacillus.

In one, the condition presented as a pseudocyst of the lesser peritoneal cavity, 2600 c. c. of hemorrhagic fluid, sterile upon culture, being removed: the layer of peritoneum forming the posterior wall of the lesser cavity immediately over the pancreas had disappeared, the partly necrotic pancreas being exposed to view upon removal of fluid.

Operations

In six cases a drainage of the pancreas was employed, the route of approach being through the gastrocolic omentum in four and the gastrohepatic omentum in two: in four of the six, cholecystostomy with removal of calculi was done, in one cholecystectomy was done, in one the condition of patient was so precarious that the gall-bladder pathology was not disturbed. Of the two in which pancreatostomy was not employed, in one the pancreatic inflammation involved the left half of the body and the tail of the pancreas without apparent necrosis and a removal of calculi and cholecystostomy was relied upon to give drainage: in the other, the

pancreatic pathology was thought to be a subacute inflammation complicating cholecystitis: a cholecystectomy with common duct drainage was done followed by death, autopsy showing acute pancreatic necrosis. This case furnished the only fatality in the series, a mortality of 12.5 per cent.

Synopsis Case Histories

Case I. No. 5237-2-23-1917. Male, age 32. History gall-bladder colics. Duration present illness three days. Pain, nausea, vomiting. Tenderness right upper quadrant. Jaundice present. Bile, albumin, casts and pus in urine. White cell count 5300, P. M. N. 64.7, small lymphocytes 23.3, large lymphocytes 11.5. Tentative diagnosis, Cholecystitis. Operation. Head of pancreas shows marked enlargement: removal large distended gall-bladder containing calculi: drainage common duct through cystic duct. Postoperative history: No bile from drainage tube. Bleeding from bowel, stomach, gums and drainage tube. Severe epigastric pain, collapse and death on ninth day after operation. Autopsy—Acute Pancreatic Necrosis. Pathological report—Chronic Cholecystitis, Acute and Chronic Pancreatitis.

Case II. No. 10097-3-16-1921. Male, age 51. Operation for gall stones six years ago. History of colics before and since operation. Last colic seven days ago, since when has been confined to bed. Pain in epigastrium radiating to gall-bladder area and to right renal area. Temperature 98.2, pulse 90. Slight jaundice. Rigidity and tenderness right upper quadrant, most marked tenderness in right renal area. Urine contains bile, albumen, casts, microscopic blood and pus. White cell count 6800. Tentative diagnosis: Cholecystitis with recurrent calculi. Operation—Adherent mass consisting of gall-bladder, duodenum, pylorus, colon and omentum. Upon separation hemorrhagic infiltration with areas of necrosis in pancreas, subhepatic and right renal spaces, and ascending mesocolon as far as cecum-gall-bladder containing calculi removed and common duct drained through cystic duct. Gastrohepatic omentum opened and pancreas drained with gauze cigarette—

cigarette drains placed in subhepatic and right renal spaces. Recovery.

Case III. No. 13119-11-8-1922. Female, age 39. History digestive disturbance; no colics. Acute onset forty-eight hours ago, pain, nausea, vomiting, constipation, slight cyanosis. Pulse 120, temperature 102. Leucocytes 15,300. P. M. N. 86.5 per cent.. Abdomen shows slight mass in left upper quadrant. Urine shows albumen, casts, microscopic blood and pus. Tentative diagnosis, intestinal obstruction. Operation—Acute hemorrhagic pancreatitis. Pancreatostomy through gastrohepatic omentum. Cholecystostomy with removal of stones. Recovery.

Case IV. No. 14099-10-15-1923. Male, age 52. History of gall-bladder colics and reflex digestive disturbance. Has had recurrent attacks of iridocyclitis for years. Last colic four weeks ago. Since onset of last or present illness has had continual pain in right upper quadrant. For past week has had fever, 101-102 degrees. Tender mass in right upper quadrant. Leucocyte count 12800, P. M. N. 78 per cent. Urine shows albumin and microscopic pus. Tentative diagnosis: Cholecystitis. Operation: Gall-bladder contains stones and is not adherent to mass. Cholecystostomy with removal of calculi. Mass corresponds to pancreas and overlying omentum shows multiple areas of fat necrosis. Mass approached through gastrocolic omentum and is found projecting into lesser peritoneal cavity. Opened and evacuated of six ounces of pus showing colon bacillus on culture: necrotic putty-like masses of pancreatic tissue removed from abscess cavity. Drainage. Recovery.

Case V. No. 15678-3-31-1924. Female, age 34. Colics and digestive disturbance for more than one year. Marked and associated with vomiting at intervals for past year. At times, vomitus has contained blood. Has been bedfast for past six months. Weight one year ago 173, present weight 100. In October 1923 first noted swelling of mass in upper abdomen which at times has disappeared; has been constantly present for past month. Pulse 138, temperature 100. Fluctuating mass occupying upper abdomen between the costal margins, extending from ensiform to

point below umbilicus, most marked to left of midline. Blood shows hemoglobin 68, Red Blood Cells 3,170,000, leucocytes 13,300. Urine shows albumin, microscopic blood and pus. Tentative diagnosis: Cholecystitis, pancreatitis with pseudocyst of lesser peritoneal cavity. Operation: Local anesthesia. Lesser peritoneal cavity opened above stomach and evacuated of 2600 c. c. of hemorrhagic fluid sterile on culture. Pancreas shows necrosis of surface exposed in sac. Gall-bladder contains multiple calculi and is not disturbed. Edges of incision in lesser cavity are sewn to parietal peritoneum and lesser cavity drained with tubes. Recovery.

Case VI. No. 16360-9-1-1924. Female, age 50. Digestive discomfort, epigastric pain and colics for three years. For past six weeks has noted increase in pain which has been practically continuous with evening temperature of 100 to 101. Abdomen has increased in size. While in hospital for further study was seized with acute pain, nausea, vomiting and fever rose to 102: Pulse to 140. Abdomen shows presence of fluid, is tender and rigid over gall-bladder extending to left of midline. Leucocyte count on entering hospital 11,800, after onset acute attack 18,100, P. M. N. 82.5 per cent. Urine shows albumen, microscopic pus and blood. Tentative diagnosis: Cholecystitis, acute pancreatitis. Operation: Bile tinged, free fluid in greater activity. Gall-bladder is thick walled, edematous and contains stones. Cholecystostomy with removal of stones. Pancreas is greatly enlarged, nodular and soft in consistence; adjacent tissue is edematous, hyperaemic and bleeds on slightest manipulation. Gastrocolic omentum opened and drains placed down to head of pancreas. Recovery.

Case VII. No. 16713-11-3-1924. Male, age 64. History of gall-bladder colics and digestive disturbances over a period of twenty years. Mild colics three weeks ago. Present acute illness began with severe colic six days ago: pain has necessitated opiates continually since. Nausea and vomiting marked. Abdomen exquisitely tender in epigastrium and under right costal margin. Pulse 108, temperature 100. Leucocytes 9800. Urine shows

albumen, microscopic pus and blood. Tentative diagnosis: Cholecystitis. When under anesthetic mass could be felt extending across abdomen corresponding to site of pancreas: added diagnosis of acute pancreatitis made. Operation—General peritoneal cavity contains free clear fluid. Lesser peritoneal cavity opened through gastrocolic omentum, contains hemorrhagic fluid, multiple areas of fat necrosis in omentum and mesocolon. Pancreas is embedded in hemorrhagic exudate and presents multiple areas of necrosis. Cholecystostomy with removal of calculi: pancreatostomy with tampon drainage. Recovery. During convalescence this patient had several hemorrhages from drainage trace requiring packing for control.

Case VIII. No. 17157-2-18-1925. Female age 51. History gall-bladder colics and digestive disturbances over a period of years. Duration present illness four days: severe colic, nausea, vomiting, slight jaundice: greatest intensity of pain noted in left upper quadrant: in previous attacks or colics pain had always been noted in right upper quadrant. Pulse 96, temperature 101: tender over entire epigastrium, most marked to left midline. Leucocytes 12,700. Urine shows albumin, bile microscopic blood and pus. Tentative diagnosis: Cholecystitis. Operation: Gall-bladder thick walled, non-adherent, contains multiple stones. Pancreas is enlarged, the left half of body and the tail are greatly enlarged and embedded in inflammatory infiltration which involves the hilum of spleen and transverse mesocolon. No hemorrhagic deposit present. Cholecystostomy with removal of stones. Recovery.

Summary

Acute pancreatic necrosis, acute hemorrhagic pancreatitis and pancreatic abscess are not separate clinical entities, but represent different stages of the same process, the origin of which is not entirely clear. The rapid destruction of pancreatic tissue is due to the activation of trypsinogen within the gland itself: normally this is done by the enterokinase in the duodenum. The most logical explanation for its activation within the pan-

creas is that it is due to a retrograde injection of infected bile or duodenal contents through the ducts of Wirsung and Santorini as well as by the minute hemorrhages and bacterial toxins resulting from a pancreatic lymphangitis. Biliary tract infections have been present in more than 50 per cent of the reported cases, in 100 per cent of the series herewith reported. The lymphatics draining the gall-bladder and bile ducts are in intimate association with the lymphatics of the head of the pancreas before they join the aortic group. Infection following this path readily enters the head of the pancreas where resultant inflammation and minute hemorrhages may readily activate the pancreatic ferment. The powerful digestant action of the ferment upon the blood vessels of the pancreas doubtless explains the presence of marked hemorrhagic deposit while the absorption of the autolyzed pancreas, toxic protevsas, is in large measure responsible for the shock and early toxic manifestations.

The area of fat necrosis commonly seen in the peritoneum, root of mesentery, mesocolon and omentum are due to the action of ferments in the escaped pancreatic secretion upon the fat molecule, breaking it up into its component glycerine and fatty acids. Cases reported in which such areas have been observed in the pericardial and extrapleural fat would indicate that these ferments are capable of transportation of lymph or blood stream.

There are no pathognomonic symptoms, pain, vomiting and collapse being the most important encountered. The physical signs will depend on the stage of the disease at which the patient is seen: in some cases the lack of symptoms and physical signs is remarkable when compared with the extent and severity of the local lesion.

Laboratory examinations are of but little aid in reaching a diagnosis: for this reliance must be had upon the history of previous upper abdominal disease. the present symptoms and physical findings: pain radiating from the right costal margin across the upper abdomen, tenderness following the course of the pancreas, pain and tenderness to left of midline and the detection of a mass in the pancreatic area are beacon lights when elicited.

After all it is not so important to make a correct diagnosis of acute pancreatitis as it is to make a correct diagnosis of an acute surgical lesion in the upper abdomen: the predominance of symptoms at and above the umbilicus will usually permit of this localization when prompt operation will direct one to the pathology. The earlier the operation, the less the destruction of the pancreas, the less the absorption of toxic protevsas, the less the peritonitis and consequently the greater the number of recoveries. The indications are to re-

lieve tension, to stop hemorrhage, to prevent leakage and to afford drainage: the fact that the pancreas has no proper capsule, being embedded in loose retroperitoneal cellular tissue and fat permits of rapid extension of inflammatory infiltration: pancreatostomy with application of tampon and tube drains in and around the focus of pancreatic destruction will best fulfill these indications. The drainage of the gall-bladder, when the condition of the patient permits, is a worth while procedure in promoting recovery and securing immunity from further attacks.

NERVOUS AND MENTAL DISEASES

By J. M. Beeler, M. D., Columbia, S. C.

NERVOUS AND MENTAL DISEASE

Realizing that the General Medical Profession has little spare time to make any extensive study of the mental problem and mental diseases, but knowing that in this work they meet and recognize many early cases of mental disease as well as advanced cases, the purpose of this department during the coming year will be to assist them as much as possible in recognizing and treating these cases.

The advance made during the past ten years in mental medicine has been so great that unless one is specializing in this work it is impossible to keep posted, and, unfortunately the terminology is so different from general medicine and there is such a tendency on the part of the men doing this work to use same, thus speaking in a language known and understood only by themselves, that the general practitioner has had little opportunity to keep himself informed on mental hygiene.

It is almost impossible to realize the mental problem confronting this country today, the great number of mental cases and the fact that at least twenty to twenty-five per cent of these cases are preventable. Some idea of the problem can be conceived when we realize that in 1910 there were more insane in the State Institutions in this country than there

were students in the Universities and colleges and that the cost of their care plus the economic loss from them being idle cost the states as much as was made from the combined annual export of wheat, corn, tobacco and dairy and beef products. In 1915 it was estimated that the cost for the mental cases in Federal and State Institutions amounted to over 35 million dollars. This did not count the cost for the care of the feeble-minded and Defective cases cared for in County Homes. The economic loss alone, not to consider the ruined lives and families, should awaken in all of us a strong impulse to consider the mental side of our cases as thoroughly as we now study the physical body.

Psychiatrists and men interested in mental problems have realized for a long time that custodial care and treatment in mental diseases were not sufficient and like other branches of medicine, the tendency has been toward prevention. The modern idea of Mental Hospitals is no longer to make them merely a place of treatment and care, but they must become educational institutions for Mental Hygiene for the district or state they serve.

If prevention of Mental Disease is to be accomplished it is fully realized that the general practitioner and the public must have some idea of the early symptoms of the dis-

case, its course and preventive treatment.

If early recognition of the pre mental case was made by the family physician and the case treated, many a hopeless case of mental disease would be prevented. At the present time too little attention is paid to the directing force of the body and the Mental state neglected or ignored until a psychosis develops and the patient becomes a disturbing influence in the community. Many are the patients received at hospitals for mental disease who could have been treated in their home environments had the family physician but appreciated fully and interpreted correctly the early manifestations of the disease. Not only is this true, but in the hands of the family physician lies, to a great extent, the future welfare of the patient when the hospital has returned him, as improved, to his former place in society.

The Department of Mental Hygiene was established in January 1924 as part of the educational and preventive work conducted by the State Hospital at Columbia.

The Department work is two fold, educational and clinical. It is an active part of the hospital and through it the parole patients are kept in touch with and as much as possible advised in regard to their condition.

The educational part of the program consists in talks on Mental Medicine to various Medical Societies, and the Senior Class in the State Medical School. Courses on Mental Nursing are given the senior classes of the nursing schools where the Clinics are held. Talks on mental problems are given various civic organizations and lectures on Abnormal

Psychology are given to classes in various colleges and schools. The department is more than glad to give talks on Mental Hygiene and its allied subjects to any group of Physicians or County Medical Society.

The Clinical side of the work has gradually developed and there are now Clinics held at Columbia, Anderson, Greenville and Spartanburg. They are open to the Medical Profession for Diagnostic purposes, suggestion on treatment and advice on mental problems. The Clinic will give the mental treatment while the physician cares for the physical side of the case, if requested.

The Clinics are also used by the Local Social agencies for character studies in their problem cases, and by the Juvenile Court in their behavior cases. The schools have used Clinics for mental grading of their children and for advice on their mental problems.

During the coming month this space in the State Journal will be devoted to brief discussions of different phases of Mental Hygiene such as Early Symptomatology, Preventive Psychiatry and outlines and diagnostic symptoms of the most common mental diseases, and it is hoped that these summaries may prove of practical value to the busy general practitioner in his work.

Location and date of Mental Clinics held over the state at present:

Greenville—June 11, June 25, July 9, July 16.

Columbia—June 1, 8, 15, 22, 29, July 6, 13, 20.

Anderson—June 10, 24, July 8, 22.

Spartanburg—June 12, 26, July 10, 24.

GASTRO-ENTEROLOGY

By F. M. Durham, M. D., Columbia, S. C.

THE HISTORY OF THE INJECTION TREATMENT OF HEMORRHOIDS

Just before and just after the Civil War Medical education was slipshod. The medical colleges had no trained men to teach proctology and the young graduate in medicine looked upon all anal pathology as "piles". These young physicians had been taught that the only way to get relief from piles was to undergo a very painful operation requiring a general anaesthetic, an operation which was liable to be followed by stricture or incontinence.

During this period, Dr. Mitchell of Ohio conceived the idea of injecting hemorrhoids with a carbolic acid solution. Unfortunately this formula was kept secret and sold to anyone for five dollars after binding them to secrecy. The only requisite then for a "pile doctor" was to know the formula and own a hypodermic syringe. This was the beginning of the Office or Ambulant Treatment of Piles.

The woods soon became filled with "pile doctors" who traveled over the country practicing their art, especially in the Middle West and the Western Portion of the United States. Fortunately a few "itinerant" or irregular doctors did perfect the injection treatment of hemorrhoids and developed a technique for the treatment of ano-rectal diseases that was far ahead of anything that then existed. Unfortunately they shrouded their work in mysticism and kept the formula secret and did a great deal of advertising. This kept them from being recognized by the regular physician and their good work was overshadowed

by the inferior work of the ignorant quacks and charlatans.

A fight soon took place between the adherents of the injection treatment and our brethren who believed only in the operative treatment of piles. The itinerant physician went from town to town, advertising to cure piles without the knife or thermocautery, without the hospital bill, without detention from work, without a general anesthesia and without pain. The regular physicians condemned the injection treatment of hemorrhoids claiming that it produced great sloughing and frequently stricture, which it did while in the hands of the ignorant quacks. The fight became so intense that the injection of hemorrhoids was looked upon as quackery.

Fortunately a few unbiased and highly respectable men did give the carbolic acid treatment a fair test and they found it to be very efficacious. Tuttle was one of these men. Martin of Philadelphia did much to popularize the method. Arthur S. Morley, F. R. C. S., England, is the much noted and most ardent supporter of the carbolic acid injection at the present time.

In 1916 Terrell of Richmond, Virginia discovered that he could inject a solution of quinine and urea hydrochloride into internal hemorrhoids and that the hemorrhoids would disappear without sloughing, without infiltration and with very little, if any, pain. Since this discovery the carbolic acid treatment has been on the wane and a solution of the quinine and urea hydrochloride has become the popular injecting solution for internal hemorrhoids throughout the United States.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

DEATH RATE TOO HIGH AMONG AMERICAN MOTHERS

Five nations maintain better infant mortality rates than the United States, and sixteen nations have lower death rates for mothers. The American Child Health Association makes the following statement regarding infant and maternal mortality in the United States.

"One newspaper is quoted as stating that the most important happening in this country last year was the birth of 2,000,000 children.

How many of them lived? This is not known accurately, because there remain eighteen states whose registration of births is so incomplete as to exclude them from the birth registration area. Of the thirty states in this country within the registration area, one child in every thirteen born dies during its first year. If the same ratio applies to the states whose birth registration is incomplete we have a total loss of 190,000 American children a year.

That is startling, but it is a long way from the day when parents were considered fortunate if they were able to bring up two out of every three of their children.

Still, it leaves us behind five other nations, including New Zealand, the best off of all countries which keep books on their greatest asset. New Zealand loses only one in twenty of its children during the first year.

But here are things almost as bad as death. There are children unfitted or not half-fitted

for life. And there are hordes of them just enough handicapped physically or mentally to be drawn into the ranks of those who may labor long, but receive little happiness or substance.

Here are some of the handicaps (the figures may be taken as approximately correct):

Studies made in many communities indicate that millions of American school children suffer from malnutrition of physical defects, most of which can be prevented and many of which can be corrected.

They range from 75 per cent with dental defects, to one-half of one per cent with organic heart trouble. In between come those with tuberculosis defects of vision, etc.

Then, as to mothers:

According to the United States Census Bureau, 17,800 women in the United States of America died from conditions caused by childbirth in 1919. In 1920 the rate rose to eight per 1000. In Italy, crowded as she is, only five mothers die per 1000.

Sixteen nations have a lower death rate for mothers in childbirth than we have.

To focus attention upon the above facts, without at the same time attempting to indicate some of the ways out, would be of little service. May Day, which is celebrated by children in many communities, perhaps offers the best opportunity to combine incentives to increased outdoor life for children with efforts toward a knowledge of what to do next in child health and child health education."

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

Crosbie, Arthur H.: Pyelonephritis. The Boston Medical and Surgical Journal, May 7, 1925, Vol. No. 19.

The writer states that the term pyelitis should be abandoned in cases of infection of the kidney pelvis as the invasion always extends to the tubules and never involves the pelvis alone. Pyelonephritis signifies any bacteria invasion of the kidney. This is the most common condition that the urologist has to deal with.

Crosby dogmatically writes as follows:

"1. Pyelonephritis occurring in an otherwise normal kidney, unless caused by the tubercle bacilli, tends to get well.

2. Recurring attacks no matter how slight should be investigated by pyelograms.

3. If attacks recur in kidneys that have been proved to be normal otherwise, always look for focal infection especially devitalized teeth, tonsils and intestinal stasis.

4. Pain is not a constant nor a reliable symptom either in a simple pyelonephritis or in pyelonephritis developing in an abnormal kidney. Many times pyelonephritis developing in an abnormal kidney, that is in the presence of stones, kinked ureter, etc., may entirely destroy that kidney without localized pain ever being present.

5. Every case of pyelonephritis should have the urinary sediment followed after the subsidence of symptoms. If red cells or leucocytes persist pyelograms should be done. A kidney rarely becomes destroyed without tell-tale evidence in the urinary sediment."

The most common organism found is the colon bacillus, but this is often a secondary invader that has outgrown some other pus producing bacterium.

The writer mentions the work that Bumpus Meisser and Rosenow have contributed to kidney infections. Cultures were made from the urine of a number of patients with pye-

lonephritis showing the colon bacillus. Rabbits were inoculated from these cultures and no infection was reproduced in the kidney. Cultures were then made from the roots of extracted devitalized teeth of these same patients and a green producing streptococcus was found. These organisms from the cultures were injected into rabbits and in all instances a kidney infection was set up, thereby showing a specific and selective action for kidney tissue. It is interesting to note that the observers "Purposely took patients in whom the devitalized teeth showed no bony changes by the roentgen ray. The writer quotes their paper as follows: "It is not generally appreciated that there may be a vast number of organisms around a devitalized tooth before they destroy sufficient bone to make their presence manifested in the roentgenogram. We believe, therefore, that it is a mistake to exclude the teeth as a possible focus of infection simply because apical abscesses are not demonstrated by the roentgen ray.

Crosby thinks that all devitalized teeth should be removed regardless of whether they are causing symptoms or not.

A focus of infection in any part of the body may cause pyelonephritis. Intestinal stasis is frequently a factor. Trauma, fatigue, exposure to cold, stone, tumor and anything which interferes with the proper drainage of the kidney, such as aberrant blood vessel, kink of the ureter, stricture of the ureter, gravid uterus, prostates, etc., is a factor in production of pyelonephritis.

The infection is usually through the blood stream. The writer does not think that ascending infection is common though its possibility has been shown by Graves. He thinks that the chill which follows urethral instrumentation is due to a pyelonephritis caused by bacteria entering the blood stream.

"The symptoms vary all the way from none

to most marked symptoms of prostration and localized pain. Many people complain of nothing but frequency and many of these cases escape under the diagnosis of cystitis. Where the bladder is much involved terminal hematuria is not uncommon. Occasionally hematuria is a prominent symptom. Not infrequently the symptoms are those of a stone passing down the ureter. The pain was caused by the passage of plug of mucous down the ureter. At such a time it is not uncommon to have a patient pass clear urine as the urine from the infected is shut off. Pyelitis developing where there is obstruction to the outflow of urine anywhere in the urinary tract is a most serious affair and is apt to have fatal results unless overcome."

In the acute cases he advocates the usual simple palliative measures and catheterizes the ureters in these cases only when there is evidence of obstruction. All foci of infection should be removed and he thinks that the devitalized teeth should be extracted. Recurring attacks should always demand a thorough urological examination of the kidneys and this is also applicable to children. No case of pyelonephritis should be dismissed until the urine is free from pus and blood cells. He has found pelvic lavage through the ureteral catheter with 2 1-2 per cent mercurochrome solution very satisfactory in conjunction with other lines of treatment.

ROENTGENOLOGY

By T. A. PITTS, M. D., Columbia, S. C.

Good clear radiographs made in the proper positions is the most accurate and accepted method of examination of bone injuries, fractures and dislocations and since its more general employment it has been the one big factor in lessening the number of deformities of traumatic origin. The practice of palpation and manipulation for the well known sign, crepitus as the sole method of diagnosis is rapidly on the decline and even the laymen are rightfully demanding more, for it is generally known that it is impossible to tell positions of fragments thus.

The radiographic examination gives correct information as to the extent and position of the injury, direction of the fracture lines and position of the fragments; all of which are eminently necessary for the correct treatment and employment of proper appliances, and the plate is a permanent record of the case.

One does not have to be embarrassed in the court room many times by having to answer negatively to the question, "Did you have this X-Rayed" before he established it as a routine to have all injury cases thus examined.

Our courts recognize this as a necessary step in the handling of injury cases and one lays himself liable when he attempts to treat these cases without this necessary information.

The practice of employing Dentists and otherwise inexperienced men for radiographic work, who make probably one plate a month experience in interpretation. The best men often make inadequate plates, from incorrect positions, lack of experience in exposure time, poor dark room technique and practically no experience in interpretation. The best men require good plates for correct reading and with the above handicaps and the lack of experience as above mentioned this form of examination is certainly worth less than the usual cost.

On account of the number of incorrect positions found after splints had been applied, we have recently tried to encourage secondary examinations by making these additional plates at a substantial reduction in price, making it well worth to patient and Doctor.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

THE MANAGEMENT OF HERNIAS

Coley, of New York, in the International Journal of Medicine and Surgery, divides hernia into, those best treated by mechanical means and those preferably disposed of by operative procedure.

The bandage treatment for hernia is recorded nine centuries before Christ. The Steel truss was first used in 1628 in France. Modern trusses are classified into three types.

I. The Knight truss, perhaps the most practical for young children. It is easily adjusted, cheap, and not hard to keep clean.

II. The French truss, a semi-elliptical spring, leather or cloth covered, a well stuffed pad attached to one end, the other end terminating in a strap, which passes around the back and fastens to the pad in front. It may be made for a double hernia. It is efficient, moderate priced, and is the model in routine use in the Coley Clinic.

III. The Frame truss, is a modern refinement, representing comfort and practicability. It has a metal frame, which encircles the body, and to the frame a pad with water in vacuo is attached.

Indications for mechanical treatment.

1. Children below three years of age with hernias that can be held up.
2. Adults who desire temporary postponement of operation for brief times—business and family reasons.
3. Adults with intercurrent disease which prohibits operation.
4. Aged people.
5. Certain recurrent hernias.
6. Umbilical hernias in children should be strapped.
7. Post-operative ventral hernias in very

obese people are sometimes best treated by binders or strapping.

Contra-indications to mechanical treatment.

1. Incarcerated, or strangulated hernias.
2. Hernias associated with hydrocele of the cord or undescended testes.
3. Large, long standing scrotal hernias which slip by a truss.
4. Epigastric hernias.

Indirect inguinal hernia should be treated by the Bassini technique or one of its modifications.

In direct inguinal hernia the percentage of operative recurrence is greatest. This explains the various modifications which different surgeons have devised for the cure of direct hernia.

One school has utilized the rectus muscle and sheath, another has used the external oblique oponeurosis for additional support.

Gallie has recently introduced the living suture. It is noteworthy for the treatment of direct, recurrent indirect, umbilical and ventral hernia. He removes a piece of fascia lata, and splits it into strips, 1-4 inch wide and uses them as sutures. The gap or abridgement between poupart ligament and the internal oblique muscle is filled in by weaving the parts together as a sock is darned and no attempt is made to pull them together as has heretofore been done when catgut is used. The technique, of course, is tedious, requires time and skill and familiarity.

In operating for femoral hernias, the femoral route is easier and quicker and just as satisfactory provided the femoral canal be closed.

Local anesthesia has in certain instances, a few advantages, though it has its limitations. It is not suitable for children or nervous adults. It does not permit of ready dissection, in large recurrent hernias.

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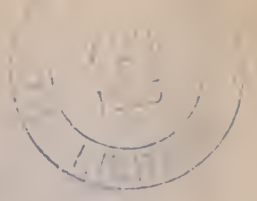
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NERVOUS AND MENTAL DISEASES

J. M. BEELER, M. D., State Hospital Columbia, S. C.

EDITORIAL

JOINT MEETING OF PICKENS AND OCONEE SOCIETIES

The June meeting of the Pickens County Medical Society was notable for a combined scientific-social program, and the joint meeting with the Oconee County societies and the womens auxiliaries of these two counties. The place was picturesque, being the mountain home of Dr. J. L. Valley on the Keowee River a short distance below Jocassee. Dr. L. G. Clayton, who has been president of the Pickens County Society for a number of years, presided. The scientific program consisted of extempore addresses by a number of physicians not only from Oconee and Pickens but from Anderson and Greenville. The social features added very greatly to the success of the meeting. Pickens County has one of the livest medical societies in the state. The membership is not large, but they make up in

progressive enthusiasm for any seeming disadvantage accruing from a small membership.

DEATH OF DR. J. E. EDWARDS

To the hundreds of physicians who attended the meeting of the South Carolina Medical Association at Spartanburg in April, the news of the death of Dr. J. E. Edwards, Chairman of the Committee on Arrangements, comes as a great shock. No one feels this more keenly than the Secretary-Editor who found in Dr. Edwards, for nearly a year prior to this meeting, a whole-hearted cooperation to make the Spartanburg meeting the success it achieved. Dr. Edwards was still a young man, yet he left a lasting tribute to his ability as an organizer and to his vision of the future of the community in which he lived.

According to the public press, he was the first to suggest a general hospital for Spartan-

burg County, and worked indefatigably for the magnificent building in which the clinics were held at our state meeting. Dr. Edwards was interested in public health. He was also one of the pioneer workers in the domain of pediatrics in South Carolina.

DEATH OF DR. N. B. EDGERTON

The Medical Profession of South Carolina has been profoundly distressed at the passing of Dr. N. B. Edgerton of Columbia. Dr. Edgerton was a young man of unusual ability; a Urologist of great promise, who had already contributed much to the progress of the South Carolina Medical Association. He had served a number of years in the House of Delegates, and was always alive to the questions of the hour in organized medicine. Dr. Edgerton read a number of valuable papers before various medical societies. He was an all around good citizen in the community in which he lived. In short, for all time the South Carolina Medical Association will treasure the memories of one of its most loyal members.

CORRECTION OF DR. TAYLOR'S ARTICLE

In another part of this issue Dr. Taylor calls attention to an oversight in the publication of his paper on the History of Cancer in the June issue. We are glad to make this acknowledgement. The footnote was published, but did not clearly explain that the paper was a translation.

EPIDEMIC INFANTILE PARALYSIS

In view of the increasing number of cases of Poliomyelitis in South Carolina, and the concentration of the efforts of the State Board of Health, and the United States Public Health Service on this problem, we have requested Dr. R. M. Pollitzer of Greenville, Associate Editor of the Journal in the Department of Pediatrics, to present an article on this subject, and it appears elsewhere in this issue. Dr. Pollit-

zer makes a number of pertinent suggestions, and calls attention to the fact that the term Infantile Paralysis is somewhat of a misnomer in as much as the disease attacks practically all ages. Attention is also called to the preventive phase of the disease. More and more the practicing physician finds an enlarging field for promoting preventive medicine in the daily contact with disease at the bedside. When the time arrives in which every general practitioner and every specialist concentrates the same thought on the prevention of disease as on its cure, it is probable that the enormous sums now demanded by health departments, and the distress of sick and suffering humanity will be materially curtailed. This will not come, however, until medical schools everywhere give the proper place to the teaching of preventive medicine in the curriculum. There are hopeful signs. Many schools are increasing the hours devoted to this subject. Our own state medical college is to be commended for having a full professor on public health in the person of Dr. James A. Hayne, State Health Officer.

SPARTANBURG

Staff Meeting, at Spartanburg General Hospital, July 10, 1925.

The following Resolution was adopted:

"WHEREAS, on Monday, July 6th, 1925, our friend and co-laborer in the medical profession,

JAMES EDWARD EDWARDS, M. D.,
passed to his final reward, and

It is our desire to permanently record our deep appreciation of our feeling of personal loss; the loss to the medical profession, to the Spartanburg County General Hospital, and to the community, as caused by the death of our fellow practitioner:

We would bear witness to the purity of his personal Christian life, and offer it as an example to the youth of our City.

His professional career, we offer as a model of sacrificial service to those who are to follow in his life's work.

The Spartanburg County General Hospital,

(Continued on page 184)

ORIGINAL ARTICLES

INDICATIONS FOR TONSILLECTOMY IN ADULTS*

By Edward F. Parker, M. D., Charleston, S. C.

That all children enjoy better health and notable immunity from many minor and major ailments after removal of their tonsils is indisputable.

Only in the last few years have the tonsils in adults been considered important by surgeons and physicians as causative of contributory factors in a number of intractable systemic diseases and localized lesions.

By what methods can we decide that they should be removed as a so-called focus of infection, responsible for the symptoms complained of or observed?

We face the facts that recurrent suppurative peritonsillitis is the most positive indication for tonsillectomy and that the operation insures absolute immunity but in the periods between the attacks macroscopically and microscopically the tonsils are usually most inoffensive.

Recently, Dr. Charles Mayo expressed to me the opinion that if the tonsils of all children were removed there would be no heart disease. Dr. William J. Mayo told me he regarded the tonsils in adolescent and gall bladder infections in later life responsible for most cardiac lesions. Dr. Vinson said that at the Mayo Clinic tonsillectomy was almost a routine procedure in the treatment of renal calculus, and Dr. George Crile told me that in Hyperthyroidism the tonsils were usually removed, depending on the amount of toxemia either before or after thyroid operation.

Such prominent specialists as Dr. Crowe of John Hopkins, Wendell Phillips, Lewis Coffin, Harmon Smith and Philip Kerrison of New York, write me that they do not depend on laboratory tests or macroscopic evidence

in deciding whether or not tonsillectomy is indicated in adults and incidentally note that removal of the least offensive tonsils often gives the most successful results.

Dr. Henry P. Wagener, Mayo Clinic, writes that "Dr. Rosenow is making investigations in the hope of finding some more definite indications in cases where the physical condition of the patient perhaps contra-indicates an eliminative tonsillectomy. Dr. Rosenow makes cultures from the secretions expressed from the tonsils and injects them intravenously into rabbits. If the lesions are reproduced clinically and serologically the tonsils are regarded causative factors, removed, and autogenous vaccines made from cultures or organisms recovered from the experimental animal are given: if the disease is not reproduced, the tonsils are considered innocent. He writes further, however, that, practically, in diseases of the type commonly ascribed to focal infection, if no other focus is found, the tonsils are removed when plainly diseased or etiologically to eliminate them."

It seems fair then to say that the frequent use of the term "Infected Tonsils" in physical examination reports is misleading, the impression that the presence or absence of expressible fluid or semifluid secretion of much diagnostic value, erroneous, and the idea entertained by many surgeons, physicians, laymen and women that macroscopic and microscopic findings are available which definitely determine the advisability of tonsillectomy in adults for the cure of symptoms or lesions elsewhere is not warranted.

Unless the clinical and serological reproduction of symptoms in animals is regarded essential, the advisability of tonsillectomy in adults at present is largely determined by the opinion and practice of outstanding leaders in medicine and surgery and the judgment and experience of the surgeon consulted. The remarkable and almost invariable improvement following tonsillectomy in all children points

*Read by title before S. C. Medical Association, Spartanburg, S. C., April 22-23, 1925

reasonably to the conclusion that similar results might be expected in all adults, provided other foci do not exist, but its more serious aspects in the latter suggest discriminate operation. In adults, experience and research so far have enabled us in group but not in individual cases to state positively the real kinship of tonsils and alleged or observable symptoms elsewhere.

THE PRACTICAL APPLICATION OF BLOOD CHEMISTRY*

By George F. Klugh, M. D., Atlanta, Ga.

Blood chemistry owes most of its progress to American workers and their improvement of analytical methods since 1912. Each year brings out simpler and more accurate methods with reports of more extensive studies of the relation of blood chemistry to disease. To be of value in diagnosis, prognosis and treatment, the quantity of a constituent of the blood must vary from normal in the presence of disease and must be susceptible of accurate estimation. These conditions are fulfilled by urea, sugar, CO₂ combining power, creatinine and uric acid in diseases characterized by abnormal metabolism or decreased elimination; such as, diabetes, nephritis and gout. These five constituents have been studied more thoroughly than the rest, but much work has been done on others, notably calcium and phosphorus in tetany, rickets and other infantile disorders of metabolism. These and other studies on endocrine disorders, infectious diseases, and various abnormal states promise rich returns when better methods and more data are available.

Probably the largest field of usefulness for blood chemistry is in chronic interstitial nephritis, especially in America where we find so many cardio-renal-vascular cases of varying degrees of severity, often accompanied by high blood pressure. It is in these cases of interstitial nephritis with destruction of the uriniferous tubules that we have marked retention of urea and other non-proteid nitrogen

constituents. The urea nitrogen determination is one of the most accurate methods of measuring kidney function. Its retention appears to be cumulative even when there is comparatively little kidney damage and before there is sufficient changes in the urine to be detected by present methods. Since urea is a product of normal metabolism, the amount of retention in the blood depends on the difference between the urea produced and that excreted by the kidneys. Consequently, the amount of urea in the blood is an index to the kidney damage and helps us to determine the stage of disease. It also enables us to determine whether heart or kidney is chiefly involved in cardio-renal-vascular disease.

Early diagnosis of chronic nephritis offers a chance to reduce the protein intake and consequent urea production sufficiently to delay if not prevent further kidney damage. It also stimulates further search for focal infection or other causes of toxicity and kidney irritation.

The urea content of blood in comatose patients is an important factor in differential diagnosis of uremic and diabetic coma. Urea retention is not usually marked in acute nephritis which usually accompanies acute infections or follows ingestion or absorption of poisons.

Creatinine is a product of tissue destruction and a high blood creatinine indicates serious kidney damage with toxicity from retained waste products. A blood creatinine over 4 mgms. per 100 c. cs. in chronic nephritis gives a bad prognosis. Acute nephritis sometimes gives a much higher blood creatinine with recovery. Probably in these cases there is marked tissue destruction from toxæmia and not so much kidney damage. Chloride retention occurs especially in acute nephritis and with edema.

An increase in uric acid content without increase in urea and creatinine is diagnostic of gout.

The CO₂ combining power of the blood indicates the alkaline reserve power. In infectious states it is low, and ether anesthesia is likely to reduce it still further and cause acidosis. This is especially true if there is an insufficient amount of glucose in the blood to burn up the fats.

*Read before the Laurens County Medical Society, Clinton, S. C., June 22, 1925.

The discovery of Insulin has made it imperative that we make blood sugar determinations to control our Insulin dosage. Hypoglycemia is more dangerous even than hyperglycemia. In making a diagnosis of diabetes we can't depend on tests of urine alone. Small amounts of sugar are found in the urine in renal diabetes, alimentary glycosuria and mild hyperthyroidism and is usually accompanied by a normal or nearly normal glycemia. The renal threshold for sugar excretion, that is the amount of sugar in the blood before we find sugar in the urine, varies from about 120 mgms. per 100 c. cs. in a normal subject to 150 to 200 in a mild diabetic and frequently over 300 in a severe diabetic of long standing. The renal threshold seems to increase in time with a diabetic, probably due to kidney damage by long continued sugar excretion. In these cases we often find high blood sugars with little or no sugar in the urine. Since a unit of Insulin will take care of a definite

amount of sugar those taking Insulin must have their diets figured more accurately and follow same more closely than when not taking Insulin. The Insulin should barely be sufficient to take care of sugar metabolism as cannot be taken care of by diet alone. It should never be given without blood sugar determination and its continued use as a supplement to diet or in emergencies should be controlled by frequent blood sugar estimations. Patients frequently indulge their appetites and take an extra amount of Insulin with disastrous results.

The sugar tolerance test is of special value in studying endocrine disorders and determining the renal threshold for sugar. Hyperthyroidism gives high blood sugars and alimentary glycosuria; hypothyroidism, Addison's disease and pituitary disorders give low blood sugars with high sugar tolerance. In nephritis the renal threshold is often high.

CANCER AS A STATE BOARD OF HEALTH PROBLEM

By James A. Hayne, M. D., State Health Officer, Columbia, S. C.

Mr. President and Fellows of the South Carolina Medical Association:

The Cancer problem is one that is of most vital importance from a public health standpoint for when we consider that the annual loss in the principal civilized countries of the world is not less than 500,000 lives and that in the United States it approximates 100,000 lives, it is increasing at the rate of about 2.5% per annum.

In contrast to this is the decreasing mortality from preventable diseases, nearly all of which show decreases. Suicides among cancer patients, because they are unable any longer to endure "the agony of a living death" is quite frequent. Also, surgical operations frequently prolong the life of cancer patients and they die from some other assigned cause.

Cancer is rare among uncivilized races. Observation of the North American Indians and the Eskimo population of Labrador and Alaska bear out these conclusions. Cancer is a disease of civilization. Certain habits predispose to cancer, notable among which is the habit of chewing the betel nut in Ceylon. The Cancer of Chimneysweeps from the irritation of the soot and Roentgen-ray carcinoma is limited to X-Ray workers. It has been said that Cancer is rare among the Jews. Auerbach's statistics for Budapest show cancer of the uterus a percentage of 8.6 per 100,000 for Jewesses against 24.0 for Catholics and 26.0 for other confessions—Protestants, etc. Steinheim stated that in thirty-five years of practice among the poor of the city, within from 25,000 to 35,000 inhabitants including all classes, he had never met with a single case of Cancer of the uterus among Jewesses. Malignant disease among North American Indians is extremely rare. The statistics available for the United States show that the whites have a higher death rate from Cancer than Negroes. New Hampshire shows for 1916 a rate of 112.4; 1917, 108.4; 1918, 108.6;

1919, 108.5; 1920, 117.4 and 1921, 119.8, this state showing the highest mortality rate from Cancer. South Carolina shows an extremely low rate as contrasted. It is as follows: 1916, 34.6; 1917, 36.9; 1918, 34.4; 1919, 33.6; 1920, 32.9; 1921, 34.4. Apparently Cancer is not on the increase in this State but remains at a comparatively fixed rate. Ochsner in an address before the 46th Annual Meeting of the Mississippi Valley Association, shows that there is a steadily increasing death rate from Cancer. He also states that the introduction of X-Rays and Radium has added little to the hope of relief. The U. S. Public Health Service places Cancer in the fourth place as the cause of death. 100,000 people of the United States die annually, 95% being past 35 years of age. One woman out of 8 and 1 man out of 14 above the age of 40 die of Cancer. Within the past few months a micro-organism has been isolated from transplantable mammary carcinoma of the white mouse and a micrococcus culture and morphologic character as the germ from the mouse cancer. Dr. Nuzum, by whom this micro-organism was isolated, has made more than 1200 experiments on mice in order to determine its relation to the etiology of Cancer. In three mice the tumors enlarged rapidly and microscopic sections revealed aveolar carcinomas. From Nuzum's observations it seems that Cancer may be caused by a micro-organism requiring certain conditions for survival. It grows in ascitic fluid but is inhibited by the presence of bile; it requires re-enforcement by repeated inoculations; its activity is increased by crushing the original growth; partial removal of the growth sets free the micro-organism, greatly increasing its activity. The strongest argument favoring the infectiousness of Cancer, aside from Nuzum's observations, rests on clinical facts, such as chronic irritation, either chemical, thermal, mechanical or bacterial, usually furnishing the starting point. A number of significant facts indicate that infection is an important etiologic factor in Cancer.

There is an enormous mortality from gastric Cancer among the Japanese, Chinese and Swiss who eat vegetables which have been fertilized with human excreta. The Japanese have a

mortality of 53.3 per 100,000 population from stomach Cancer while the Eskimos and other uncivilized nations who do not eat vegetables so fertilized are practically free from infection. This is also true of the Buddhists, who do not consume contaminated food or unboiled water. Ochsner has noted the following ten conclusions:

1. One should teach the public and the profession that an early diagnosis is important.
2. Remove the primary Cancer at once upon making a diagnosis, never procrastinate or temporize.
3. Whenever in doubt about a tumor remove it and study it afterwards.
4. Use radium and X-ray in a thoroughly scientific way whenever indicated.
5. Teach the public and the profession that all irritation whether it be mechanical, thermal, chemical, or electric, or due to cicatricial contraction predisposes to Cancers.
6. Teach the public and the profession that unboiled filth in food and on the surface of the skin contains Cancer germs.
7. Teach them that boiling makes these germs harmless.
8. Look upon Cancer as an infectious disease.
9. Encourage further investigations through animal experimentation.
10. Disinfect everything coming in contact with Cancer patients that might possibly spread infection.

The American Public Health Association appointed a Committee to consider one specific question—"What should official health administrators do toward the control of Cancer?" Of this Committee one was a health administrator, one a vital statistician and one a professor of preventive medicine, and a group of five men who were actively concerned in Cancer investigation and educational work were appointed by the Chairman of the Section to act in an advisory capacity. This Committee recommended that unless ample facilities already exist, that state health executives carry out a definite policy of making satisfactory arrangements with high-grade pathological laboratories, whereby without expense to patients or physician pathological examinations

on all manner of new growths can be made readily available to those surgeons or small hospitals who have not available the services of a competent pathological department. They recommended that health administrators promote the movement for periodic health examinations apart from the other benefits of such procedure, because of the direct relationship that the spreading of such custom must bear to the earliest possible clinical detection of incipient malignancy.

We believe that the State Board of Health of South Carolina should endeavor to carry out these recommendations. As to the first, we will endeavor to make some arrangements so that pathological examinations can be made of new growths for the physicians of the State where the means of competent pathological departments are not available.

We will also endeavor to promote periodic health examinations. This latter is already on the program of the State Board of Health and we hope to have the cooperation of the profession in carrying it out.

We feel that we should acknowledge that

the majority of the ideas expressed in this brief paper are from Frederick L. Hoffman, L. L. D., Statistician for the Prudential Insurance Company of America, taken from his book, "The Mortality from Cancer Throughout the World." Also, from Dr. Ochsner and the Journal of the American Public Health Association.

Suffice it to say in conclusion that as public health work has advanced the span of human life has increased and those reaching the Cancer age have also increased; the problems of public health at the present time are to answer the questions put to us by the public as to why the span of human life cannot be increased and degenerative diseases decreased to the same extent that we have been successful in reducing the diseases of infancy, childhood and young adult life. Public health administrators will have to more and more apply themselves to these problems. Enormous work has been done toward finding the cause and prevention of Cancer, but the problem is a long ways from being solved.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

EMBOLECTOMY

Dickinson, Archives of Surgery, May, 1925, states that emboli usually originates from diseased heart vessels, though they may come from atheromatous vessels, or aneurysms or from tuberculous lesions in the lung. They may be single or multiple. The embolus usually lodges at a point where vessel bifurcates or where large branch is given off.

They occur most frequently in the femoral, next in the aorta, then the brachial, popliteal and finally the axillary. Thrombus formation may occur within a few hours.

Pain, sudden in onset and intensely severe is the first symptom. Coldness and numbness follow in the parts supplied by the affected vessel. The arterial pulsation disappears. The part first becomes blanched and later discoloration of gangrene may ensue.

The prognosis depends upon the nature of the embolus, its location, the time elapsed since its lodgement, and the patient's general condition. To date, all successful operated cases have been seen within the first twenty-four hours.

The technique of the operation is comparatively simple. It necessitates extreme sterile and aseptic manipulation. The parts should be constantly moist with warm saline, and after operation the affected portion should be kept warm.

On page 1566, in the Journal of the American Medical Association, May 23, 1925, there is reported a case in which three surgeons successfully removed an embolus from the first portion of the left subclavian artery.

The patient was a woman who had an attack of acute cholecystitis. Ten days later she developed a sudden severe pain in the left upper chest, followed by rapid rise of temperature and expectoration of blood tinged sputum. Within a few hours, the left arm and hand be-

came numb and blanched and arterial pulsation had disappeared. An incision was made high up in the axilla, the artery was exposed and found to contain a thrombus. There was no pulsation. Accordingly another incision was made just below the clavicle, the vessel was lifted up into the wound, and by pushing the finger along the vessel towards its origin, pulsation was finally found at the inner border of the scalenus anticus muscle.

The artery itself was opened through a one-half inch incision and a long clot was removed and by means of retrograde milking, the vessel was emptied down to the antecubital fossa in the elbow. The proximal portion of the artery was then attacked, clot extracted and by pushing in a pair of opened forceps, the embolus itself was finally located at the point where the vertebral, supra-intercostal and internal mammary vessels are given off. After its extraction, blood immediately gushed into the wound. Proper pressure was made and the vessel wall was closed by mattress suture (reverse connell), so as to bring intima to intima and a second over and over suture was used as a reinforcement.

Six months after the operation, the woman was well; had good use of her arm and hand, milked several cows night and morning.

Stein, in the American Journal of Obstetrics and Gynecology, May 1925, states that peripheral gangrene from emboli have been known to occur after normal puerperum, abortions and gynecological operations.

The seat of the causative embolus is usually well above the upper margin of the line of gangrene.

This article describes in detail four women with normal spontaneous delivery, developing emboli and gangrene of the lower extremities within four weeks after parturition.

The first embolectomy was performed by Ssabanejur in 1895, who did an arteriotomy. The operation was not successful.

GASTRO-ENTEROLOGY

By F. M. Durham, M. D., Columbia, S. C.

When a patient consults his physician for "piles" or for a mucopurulent or bloody discharge from the bowels, this patient is entitled to just as thorough an examination as if this or similar symptomatology existed in some other part of his anatomy.

Yet how many such sufferers are brushed aside without even an inspection of the part!

It has been estimated that sixty-five to seventy-five per cent of all rectal cancers which are referred to the Surgeon or Roentgenologist are in an advanced state.

According to Leube, eighty per cent of intestinal cancers are found in the rectum.

Someone has said that if we had no piles we would have no rectal Cancers. As a rule a discharge of mucus and blood from the rectum does not have the weight in making a general diagnosis that a simple hypertrophied tonsil does.

There are two reasons for this. The first is that we are all just a little lazy and it is easier to look down a throat than to look up a proctoscope. The second reason is that the patient and frequently the Physician have too much false modesty.

The single crop cotton farmer was accused of thinking that a dollar, unless, made out of cotton, was counterfeit, and we Physicians might be accused of overlooking the fact that Cancer of the rectum will kill just as Cancer of the stomach, breast or uterus.

No case of chronic diarrhea, no chronic dysentery should be treated and no hemorrhoid should be operated upon nor injected without first making a digital and proctoscopic examination. No prescription for a pile salve should be written without first making an inspection of the parts.

Whenever a patient, who is past forty, and has lost weight complains of constipation com-

ing on suddenly, do not discharge him with a prescription for mineral oil or cascara without first excluding rectal Carcinoma. Always bear in mind, if a growth is found too high up to be thoroughly palpated with the index finger that it is not a hemorrhoid. If finger cots and proctoscopes were in more general use we Physicians would be saved from many embarrassing situations and our patients would be saved much unnecessary suffering.

Let us look at a few cases which illustrate this: A gentleman consulted his Physician for "piles", who gave him a prescription for a pile salve. The gentleman's pain grew worse and he phoned for his Physician and failed to get him so he phoned for another Physician who made a digital examination and removed a piece of wooden tooth pick.

A gentleman had a chronic dysentery which had given him considerable trouble for nearly a year. During this time he had been on several different diets and had taken many different medical treatments. When he was proctoscoped a large cancer of the rectum was found.

An emaciated and anemic patient was having copious hemorrhages whenever his bowels would move. A diagnosis of inoperable rectal cancer had been made and he had been put on Tr. Opii to control his bowels and make his remaining few months of life comfortable. This man was proctoscoped and several large bleeding hemorrhoids were found and injected. The bleeding ceased after the second injection. His diarrhea still continued to give him some trouble. An analysis of his stomach juice showed him to have an achylia. He was given H. Cl. and today he is apparently a well man and has discarded the laudanum.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

Livermore, George R.: Pathology of the Posterior Urethra.

The Journal of Urology, Vol. 13, No. 1, Jan., 1925.

Pathological conditions of the posterior urethra are very frequent and in most instances yield to proper treatment. The urethroscope should be used for the diagnosis of such lesions. Hypertrophy of the verumontanum, congenital and acquired; inflammatory conditions of the prostate, seminal vesicles, bladder and kidneys involving the posterior urethra; cysts of the posterior urethra and papillomata, etc. are found with the urethroscope. The writer has also reported a case of diverticulum of the posterior urethra successfully treated by fulguration.

The symptoms that are commonly met with are frequency, burning and difficult urination. The neurasthenic, particularly young individuals who have frequently indulged in "petting parties", is often greatly relieved by proper

treatment to the verumontanum. Some neurasthenics cannot be benefited at all.

The treatment depends upon the pathology. Where the lesion in the posterior urethra is due to disease of the kidney, bladder, prostate or seminal vesicles, these organs must be properly treated. He has found fulguration of the verumontanum highly successful in the hypertrophic and inflammatory types; for tumors of the urethra it is without an equal. Other measures frequently employed by the author are topical applications of 20 per cent silver nitrate, bladder irrigation with 1-10,000 silver nitrate solution after massage of the prostate and seminal vesicles, the passage of sounds of the Kollman dilator. The frequency and bladder irritability almost always yields to treatment by fulguration or the local application of silver nitrate. Some cases of impotency are often greatly benefited by the same treatment and when necessary the ejaculatory ducts are catheterized and mercuriochrome solution is injected into them.

PEDIATRICS

R. M. POLLITZER, M. D., GREENVILLE, S. C.

Almost exactly 9 years have elapsed since the great epidemic of acute poliomyelitis afflicted this country. Then it was that in the period between June and November in the registration area over 27,000 cases were reported and more than 6,000 people died. New York state bore the brunt of the attack; for in that commonwealth over 13,000 cases occurred during the year. The South as a whole was particularly fortunate in escaping for the disease has since 1917 been seen in many parts of the country, even from Massachusetts and Maine to California and Oregon.

Now, however, this cruel crippling plague has come upon us in South Carolina. So far 51 cases have been reported. (July 6, '25.)

The great epidemic of 1916 began in May and reached its peak in August, so that it is only reasonable to expect an increase in its incidence for some months if this onslaught is to resemble its predecessors. A great deal of study and investigation in the laboratory and in the field has been focused upon this entity, and while today treatment is still in a very uncertain stage, yet we have learnt much as to etiology, pathology and symptomatology.

The physician who is desirous of preparing himself to meet and recognize this malady should before acquiring new ideas first divest himself of some of the older conceptions. The disease is not one purely of the nervous system, but is a general infection as pneumonia, typhoid or diphtheria. But unfortunately in some instances, perhaps 50% or less the nervous system is affected; with resultant slight or severe, limited or extensive, paralysis and not rarely even death. Were it not for this secondary invasion or break in the defensive mechanism, the infection would be a trivial one.

Further unless one has had an extensive experience he can scarcely realize how protean the clinical manifestations may be. Early there may be nothing more than fever, and

irritability with perhaps drowsiness. Frequently there is some apprehension and anxiety preceding a hyperesthesia. In some instances there is a naso-pharyngitis, or a mild tonsillitis. Frequently there is a slight diarrhea, which may easily be mistaken for the common Summer Diarrhea. At times there is in the pre-paralytic stage only vomiting and fever. Fever has been found present in 98% of cases. It seldom shows a range higher than 103. In the same series (400 cases) persistent drowsiness was noted in 72% affected. There may be headache. There is often a very fine tremor, and quite frequently a stiff neck or rigidity of the spine. Profuse sweating of the head is usual. Another point worth noting is that neither the gray nor the white matter of the cord are solely affected, but the cerebrum, the pons, the medulla and the root ganglia may share in the process. Many cases of encephalitis are now considered as this same disease. The extent and location of the paralysis depends on the site and extent of injury to nerve tissue.

All cases do not have the same manner of onset. There are 2 or 3 distinct forms. The dromedary type has an interval of several days between the first and second attacks. The straggling is the name given when the nervous manifestations gradually come on without any intermission of the initial illness. The sudden onset of nerve signs and symptoms may apparently inaugurate the infection.

The incubation period is usually 3 to 10 days. The period of quarantine generally ranges from 6 to 8 weeks. It would be better, however, to have a brief quarantine and limit to the house all its members, for the disease is spread most often by healthy carriers, and those who have just passed through mild or abortive attacks. It is the duty of all, young and old, sick and well, to take great care in the handling of discharges from the upper re-

spiratory tract and from the bowels. Further all childrens parties and close contact within buildings should be interdicted. While the disease is not limited to children and the adjective infantile is incorrect, yet 90% of all cases occur in those under 10 years and 83% in those under 5. The disease is communicable, but quite often affects but one of a family. It is considered only one-fifteenth as contagious as scarlet; and that ranks low compared to measles or pertussis. It is believed today that many individuals have mild unrecognized attacks, while others escape through some protective mechanism of the normal secretions of the nose and throat.

The diagnosis after the stage of paralysis is very easy. But prior to this often more difficult. The history, the symptomatology, and the spinal fluid examination are most important. All suspicious cases should have the benefit of spinal puncture in time of epidemic. A spinal fluid cell-count of say 100,500 or 1,000 is of importance not only for diagnosis but also in prognosis. The blood count is of little or no value. Most often the paralysis comes on the first or second day; but at times

the third or much later.

The chief conditions that offer diagnostic difficulty are meningismus, tuberculous meningitis, and some forms of encephalitis.

The mortality varies greatly in different epidemics ranging from 8 to 26%. There may be no paralysis; it may be transient or permanent. As a rule the affected muscles improve, but quite often the response to all endeavor is disappointing.

Treatment by injection of convalescent serum into the spinal canal and later subcutaneously and intravenously is thought by some to have given good results. Others who have followed the bacteriological work of Rosenow and have used the serum elaborated by him are quite sure of its efficacy. To time must be left the final decision as to the merits of the respective claims. So far we know of no drug that has any value.

However, it is our duty to be up and doing along the lines of prophylaxis and diagnosis. And further, we should while trying to have the public take certain precautions to lessen the epidemic's spread, at the same time try to lessen any wild and ungrounded fears.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

EVERY HOME SHOULD BE A HEALTH CENTER

The American Child Health Association, in its statement announcing the observance of May 1 as Child Health Day, said:

"Viewing the situation as a whole it is clear that the one most important element in the field of child health is the home and family group.

The home is the natural health center. Outside agencies are only expert assistants to it. This means that the privilege and duty of maintaining the children's health belongs decidedly to the heads of the home.

There is a tendency at present for this responsibility to be shifted over to outside agencies, such as the schools, health centers, clinics, and official health departments. The health function of the home needs to be practiced and encouraged with the outside agencies endeavoring not to encroach upon, but to render assistance to the home in this activity.

There is no doubt that the child's health is very greatly affected by school attendance and other activities outside of the home. But the influences of the home act upon the child so very many more hours of each day, week, month and year that their effect is bound to be many times more profound and lasting, and they, in the largest measure, determine the child's health career. No matter how well the school may labor, habits of living, of thought and of behavior are almost entirely products of the home.

The things in the home which have influence on the health of the children are:

1. The health of the parents and other members of the family.
2. Living conditions in the home, such as cleanliness, airness, sunlight, crowding, personal harmony or discord.
3. Diet.
4. Training.
5. Recreation.
6. Medical and dental supervision."

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

CONJUNCTIVAL SUTURE IN INTRA-OCULAR OPERATION

The making safe of a Cataract operation seems to a great extent to depend upon the ocular section and the control of the opening thereby made into the eye. That is a conclusion one may deduce from the numerous papers written and read on that subject.

The best to date seems to be the operation performed as by Dr. Berens in his paper read at the American Medical Association this year, stages one and two being done as described by him. Then the suture is introduced according to the method of Dr. Derby in the American Journal of Ophthalmology, May 1925, page 381. The conjunctival bridge is then cut as in the fourth stage of Dr. Berens' technique and the lens delivered and incision closed by pulling on the ends of the suture introduced by Dr. Derby's method, and tied.

If anyone has tried to make a corner conjunctival section with conjunctival sutures in place, they will realize the advantage of a

technique that enables them to safely insert sutures after the section has been made.

"THE ETHER TREATMENT OF CHRONIC SUPPURATIVE OTITIS MEDIA"

The use of ether in the treatment of chronic suppurative disease of the middle ear is advocated by Hubbard, in the Laryngoscope, who reports excellent results. The patient is placed on his side with the affected ear up and the external auditory canal is filled with ether. He is allowed to lie in this position until all the ether has evaporated, which usually takes from ten to fifteen minutes. Whatever debris or discharge is still present is then wiped from the canal with a cotton applicator. After a few treatments at the office the patient is directed to carry out the procedure at home, the treatment being repeated two or three times daily.

This method may give a better means of dissolving and removing pus than those methods now used.

SOCIETY REPORTS

REPORT OF PROCEEDINGS OF THE MEETING OF THE MEDICAL SOCIETY OF SOUTH CAROLINA, HELD AT ROPER HOSPITAL, MAY 12, 1925, AT 8:30 P. M.

SCIENTIFIC PROGRAM

The first number on the Scientific Program was a Surgical Case Report by Dr. R. L. McCrady. Dr. McCrady exhibited a case upon which he had performed an operation for contracted pelvis, due to rickets. The following is a brief resume of the report:

"This case entered the obstetrical ward at 10:55 P. M. Name: Eloise Toomer. Hospital No. 35179. Primipara. Age: 21. At 2:00 A. M. I was called to see the case and found the patient in hard labor, with a visible contraction ring almost up to the umbilicus. The interne had examined the case several times by vagina, thinking he had a posterior position.

"The history was that the patient had been in labor for two days and had been examined by the vagina before coming to the hospital.

"Examination showed the uterus to be tight, that is, tetanically contracted and apparently on the verge of rupture. In fact, rupture of the uterus seemed imminent, and I asked that chloroform be started right away before any further examination. On abdominal palpation, the baby appeared to be about at term, with the head riding over the symphysis. The foetal heart was 150. The external pelvic measurements were: Spines, 24; Crest, $25\frac{1}{2}$; Trochanters, 30; and Baudelocque's, only $13\frac{3}{4}$ cm. (I have an X-Ray of the pelvis of this case, taken before patient left the hospital.)

Vaginal examinations showed that the head had made no attempt to enter the pelvis; the cervix was fully dilated and the membranes, fortunately, were ruptured.

Here we had a case with an impossible disproportion between the fetal head and the pelvis; the baby alive and in good condition; and a patient in labor a considerable time who had been examined a number of times by the vagina, both in and outside of the hospital.

As the risk of cesarean section rises rapidly the longer a patient has been in labor and also with the number of times she has been subjected to vaginal examinations, it seemed that the usual classical cesarean operation in this

case was contra-indicated. It is in just such cases that the new cesarean or the low cervical cesarean finds its place.

I report this case, as I think it is the first time that this operation has been done here and because, according to De Lee and others, this operation will probably replace the old classic cesarean in all but a few exceptional cases.

I followed the technic as described by Dr. John Cook Hirst: The patient was taken to the operating room and ether substituted for the chloroform. The vagina was washed out with alcohol and then the cervix and vagina painted with iodine, using a speculum so as to do it thoroughly. The bladder was catheterized and the patient prepared on the table for abdominal operation. A median incision was made from umbilicus to pubes. Before opening the peritoneum, the patient was put in the Trendelenburg position. The peritoneum was then opened and the Balfour retractor introduced. Gauze pads were then packed on either side and across the uterus from one broad ligament to the other at the upper level of the wound. The uterine peritoneum, a little below its firm attachment to the uterus, was then incised from one round ligament to the other. The bladder was dissected off the front of the uterus and pushed down as far as possible and held there with a malleable retractor. The upper flap was freed and held with a pair of artery forceps. A hyperdermic of pituitrin was given in the thigh at this stage, and a small opening was then made with the knife in the lowest part of the uterus behind the bladder. This was enlarged with a pair of bandage scissors.

Two fingers were inserted into the uterine wound and a finger in the child's mouth rotated the face into the wound; the head was then delivered and the body extracted. The baby cried immediately and seemed to be in good shape. There was no hurry about delivering the placenta, and five or six interrupted sutures of No. 2 chromic catgut were introduced while waiting for the placenta to separate. The sutures were not immediately tied, and in a short while the placenta was delivered between two of the loose sutures. The interrupted sutures were then tied, and three mattress sutures were introduced. This was followed by one continuous suture of the same material. This space beneath the bladder and over the lower uterine

segment was then sponged free of blood and blood clots and the lower flap drawn up, overlapping the upper flap, and stitched in place with a continuous suture. The gauze pads were then removed and the abdomen closed in the usual way. The patient had some temperature for several days, but, all things considered, made a satisfactory recovery and left the hospital on the fifteenth day.

The advantages of the operation are—first, that it can be done safely in certain cases where the classical cesarean would be unduly dangerous. The reason for the greater safety lies in the location of the opening in the lower abdomen and in the cervix, or neck of the uterus away from the contractile portion of the organ. The wound in the uterus heals firmly because it is undisturbed by the after pains or contractions, and then the closure of the cervix is covered by fascia and peritoneum, a further guarantee against seepage of lochia into the peritoneal cavity. There are practically no raw surfaces or suture lines to cause adhesions. Should there be contamination of the uterine wound, it is securely sealed off, and the drainage is more apt to be out through the cervix. There is less danger of rupture of the uterine scar in subsequent labors, and should it occur, it is in situation where there is not much likelihood of serious complications. At operation the spill of the liquor amnii is limited to the lower portion of the abdomen and the pelvis, as we know, is remarkably tolerant of infection."

The following Medical Case Report on "Cerebral Hemorrhage, Traumatic, in a Child of Eight Years" was made by Dr. J. W. Burn:

"Patient: Annie D. Color: White. Age: 8 years 6 months. "Previous History: Has had diseases of childhood—measles, chicken-pox, whooping-cough, and influenza. Gave history of having placed acorn in nose about five years ago, which was expelled two months ago. Has complained in a general way since that time of feeling badly.

"Present History: On April 10 at 3 o'clock, patient slipped and received a fall while walking up stairway, striking her chin and abraded skin slightly; also complaining of striking her arm. Little attention was paid to same, as child played as usual all of the afternoon.

"I was called to the child on the morning of April 10 at 2:30 A. M., being given the following history: The mother in an adjoining room heard the child scream out, and on reaching her, found that she had been vomiting. She immediately telephoned me. Upon my arrival, fifteen minutes later, I found the child unconscious, with a marked pulmonary oedema; no

radial pulse; heart very weak and rapid; pupils contracted to size of a pin point; and teeth tightly clenched. The case looked very hopeless. I immediately gave Atrophine Sulph. 1-60 gr. hypo. She responded very quickly; in one hour's time the oedema had cleared up, heart was beating very hard from overstimulation with atropia, and pupils became widely dilated. Her bowel was now irrigated, and a large quantity of exceedingly foul foecal matter was passed. Her stomach was irrigated. This returned clear. Her temperature was then taken and was found to be 102 2-5. The child remained in a comatose state. At this time I failed to elicit any further symptoms. The child remained in this condition for 47 hours, after which time she could be aroused with difficulty. Later she would answer a question intelligently but immediately fall asleep while talking. This continued for seven days, when she gradually grew better and better. On the fourth day, for the first time I noticed a tremor of her right arm, a tremor of her left eyelid, with ptosis of same; also twitching of left corner of lower lip; left pupil very slow to respond; right pupil contracted normally; her bowel failed to move under light catharsis and is still in an atonic state.

This child ran a temperature, ranging approximately from 102 2-5 for ten days, then normal for three days, then returned, ranging from 99 to 101½, and still has a little afternoon temperature at this time (May 6).

Urine was normal in every respect.

Reflexes can be elicited but are very sluggish.

At the present time patient is slowly improving.

"Spinal Fluid Examination

Exudates & Transudates

Appearance—clear.

Color—yellow.

Sugar—0.073% (slightly diminished).

Globulin—0.

Cells—13 per cu. mm.

Yellow color shown is result of hemorrhage at some time.

No blood cells found.

"Cerebro-Spinal Wasserman Test

Negative.

"Colloidal Gold Test

Normal."

The paper of the evening was read by Dr. L. A. Wilson on "Puerpal Infections".

W. ATMAR SMITH, Secretary.

(Continued on page 183)

MINUTES

MINUTES SOUTH CAROLINA MEDICAL ASSOCIATION

HOUSE OF DELEGATES

Spartanburg, S. C., Tuesday, April 21, 1925,
8 P. M.

The House of delegates met in the ball room of the Cleveland Hotel, and was called to order by the President, Dr. D. M. Crosson.

Dr. H. L. Shaw, Sumter, Chairman of the Committee on Credentials, presented the following report for that committee:

County	Delegate
Abbeville	W. L. Pressly
Anderson	E. E. Epting
	Frank Lander
	J. B. Townsend
Aiken	A. A. Walden
Bamberg	J. S. Mathews
Barnwell	W. C. Smith
Chesterfield	R. M. Newsom
Colleton	L. W. Martin
Clarendon	Chas. B. Geiger
Cherokee	J. N. Nesbitt
Chester	R. E. Abell
Charleston	J. Sumter Rhame
	John C. Van de Erve
	C. W. Kohlock
	G. McF. Mood
	F. L. Jagar
Dorchester	J. B. Johnson
Darlington	W. L. Byerly
Fairfield	R. McDonald
Florence	W. S. Lynch
Greenville	A. C. Watson
	W. C. Black
	Hugh Smith
	R. C. Bruce
	W. L. Bates
Lexington	W. P. Timmerman
Laurens	R. E. Hughes
	J. Lee Young
Lee	L. H. Jennings
McCormick	M. W. Cheatham
Marion	E. M. Dibble
Marlboro	J. F. Kinney
Newberry	T. H. Pope
	E. H. Moore
Orangeburg	Vance Brabham
Oconee	J. S. Stribling
Pickens	W. A. Tripp
	J. L. Valley
Richland	F. M. Durham
	F. M. Ruth
	N. B. Edgerton
	J. S. Fouche
	M. H. Wyman
Sumter	H. A. Mood
	Milton Weinberg
Spartanburg	W. P. Coan
	Rosa H. Gantt
	J. R. Sparkman
Saluda	D. B. Frontis
Union	R. R. Berry
York	R. E. Sumner
	J. I. Barron

REPORT OF THE SECRETARY FOR THE FISCAL YEAR 1924, ENDING DECEMBER 31

By E. A. Hines, M. D., Seneca, S. C.

There were 916 members enrolled in 38 constituent county societies in 1924. Of this number 710 paid their dues. This was the largest enrollment in our history and also a gain of paid up members over 1923. The Spartanburg meeting has inspired a greater interest than usual in regard to membership.

During 1924 the scientific activities of both county and district societies showed a marked increase over previous years.

The cooperation on the part of many of these societies has been gratifying.

I wish to acknowledge material assistance on the part of the Medical Society of South Carolina (Charleston County). This time honored society now 136 years old, has recently increased the dues, provided their Secretary with a stenographer and now furnishes the Journal with admirable scientific reports from the Medical Educational center of the State. The members of the Charleston Society have also sponsored the inauguration of a campaign for Periodic Health Examinations beginning at this meeting.

Rural Hospitals

The latter part of 1924 witnessed the most significant gift by Mr. J. B. Duke, ever made for the special purpose of establishing and maintaining rural hospitals. I wrote immediately to Mr. Duke offering the services of the South Carolina Medical Association in any way possible to further his aims in relieving suffering humanity and received the following reply. (Letter read.) Subsequent to this the matter has taken another favorable turn and Dr. W. S. Rankin.

has been appointed to take charge of the hospital situation. I wrote a similar letter to Dr. Rankin and this is his reply. (Reads letter.)

The Association and Maternal and Infant Mortality

Under the law the South Carolina Medical Association is the State Board of Health. On December 29th the Bureau of the census released to the public press the statement that

South Carolina had the highest maternal mortality of any state in the Union. Similar statements have been made with reference to infant mortality. I have corresponded with the chief of the Bureau of Census and with various officials of our State Department of Health and with the General Manager of the American Medical Association, and it would appear that to supplement the work of the various departments of our State Board of Health, post graduate courses on prenatal care, and on pediatrics together with a more intensive campaign for a better registration of births and deaths promises to be worth the effort in redeeming our state from the unenviable position she now occupies. Such a campaign might well be put on in 1925-'26.

Progressive Medical Societies in Other States

It is my duty to call to your attention the trend of some of the large and wealthy societies of the west, the southwest, and east. Of these, notably, New York, Pennsylvania, Minnesota, Indiana, Michigan, Missouri, Ohio and Texas are employing full time executive secretaries, often laymen to attend to the business of the societies and to make contact with the public and with the various legislatures. In all of these states the dues are increased from \$5 to \$10 to \$25 per capita. Texas has this year increased dues to \$15. This great increase of dues provides also for medical defense in malpractice suits. It may be advisable to appoint a Public Relations Committee to study the whole situation and report to the House of Delegates at its meeting in 1926 any conclusions reached as to how the South Carolina Medical Association may enjoy similar advances.

The Woman's Auxiliary

Indications point to a rapid increase in the number of women's auxiliaries to the constituent county medical societies. These organizations are rendering invaluable service in promoting the social and other features of the county organizations.

The Scientific Program

I have endeavored to assist the scientific committee in presenting a program comprehensive enough to attract every member of the State Association.

Clinics

For the first time, outside of Charleston, we undertake, at this meeting to present a program of clinics to supplement the paper reading program and to encourage county and district societies to do likewise where they have not done so. Permit me to urge every delegate to

attend these clinics and to report on the innovation to the society he represents.

HONORARY FELLOWS

The following members having been members of the South Carolina Medical Association for thirty years or longer are entitled to honorary fellowship:

W. M. Lester, Columbia	J. L. B. Gilmore, Holly Hill
E. W. Carpenter, Greenville	J. C. Harris, Anderson
L. B. Owens, Columbia	James A. Hayne, Columbia
H. M. Stuckey, Sumter	W. G. Houseal, Newberry
A. E. Boozer, Columbia	G. Y. Hunter, Prosperity
J. R. Miller, Rock Hill	C. W. Kollock, Charleston
E. A. Hines, Seneca	J. H. McIntosh, Columbia
R. S. Catlicart, Charleston	F. H. McLeod, Florence
J. H. Miller, Cross Hill	J. A. Mood, Sumter
W. W. Fennel, Rock Hill	G. A. Neuffer, Abbeville
A. R. Taft, Charleston	E. F. Parker, Charleston
J. A. Anderson, Antreville	D. S. Pope, Columbia
A. E. Baker, Charleston	J. H. Saye, Sharon
W. C. Black, Greenville	H. L. Shaw, Sumter
H. R. Black, Spartanburg	T. Grange Simons, Charleston
J. L. Blake, Spartanburg	J. S. Stribling, Seneca
R. A. Bratton, York	W. P. Timmerman, Batesburg
L. G. Clayton, Central	W. A. Tripp, Easley
W. B. Cox, Chester	J. P. Young, Chester
F. M. Dwight, Wedgefield	E. C. Rogers, Gray Court
C. S. Evans, Clio	J. W. Young, Clinton
J. K. Fairy, Ft. Motte	W. M. Love, Chester
D. B. Frontis, Ridge Spring	S. G. Miller, Chester
Davis Furman, Greenville	J. N. Nesbit, Gaffney
R. B. Furman, Sumter	
R. W. Gibbes, Columbia	

It will interest the House of Delegates to know that as your secretary I was elected President of the Conference of Secretaries and Editors of State Medical Journals of A. M. A. at the meeting held in Chicago in November 1923. This honor succeeded two years as President of the Association of Presidents, Secretaries and State Health Officers of the Southern Medical Association making three years as presiding officer of the Executives of the largest medical organizations in the world.

I am profoundly grateful for the cordial cooperation of the officers and members of the State Association the past year, especially the loyal support of Dr. Crosson, our distinguished president, who has been ready at all times to travel long distances and meet with the constituent societies and in many other ways to aid your secretary in promoting the welfare of the South Carolina Medical Association.

REPORT OF DR. E. A. HINES, SECRETARY, TREASURER, EDITOR OF THE SOUTH CAROLINA MEDICAL ASSOCIATION FOR YEAR ENDING DEC. 31, 1924.

Seneca, S. C.

Feb'y 27, 1925.

Dr. E. A. Hines, Sec'y-Treas. S. C. Medical Ass'n, Seneca, S. C.

Dear Sir:

In accordance with your instructions, I have

audited the books and accounts of the South Carolina Medical Association and Journal and attach hereto statements made in the form of your annual reports to the Association, which exhibits the receipts and disbursements for the year ending Dec. 31st, 1924.

Also a statement of the assets of the Association and Journal there being no liabilities.

Your very truly,

F. J. HOPKINS, Auditor.

STATEMENT OF JOURNAL S. C. MEDICAL ASSOCIATION 1924

Receipts:

Balance in Bank Dec. 31, 1923	\$1,043.55
Subscriptions	1,376.00
Advertising	2,433.59
Back dues	12.00
Sundries	115.00
Interest on Time Certificate	60.00
	<hr/>
	\$5,040.14

Disbursements:

Salaries	\$2,590.20
Printing	862.30
Office expenses	242.53
Sundries, traveling, etc.	365.26
Balance in Bank Dec. 31, 1924	979.85
	<hr/>
	\$5,040.14

Statement of Assets Journal S. C. Dec. 31, 1924

Cash in Bank	\$ 979.85
Time Certificate in Seneca Bank	1,000.00
	<hr/>
	\$1,979.85

Total Assets for S. C. Medical Association and Journal:

Medical Association Dec. 31, 1924	\$ 966.87
Journal S. C. Medical Association	1,979.85
	<hr/>
	\$2,946.72

REPORT OF SOUTH CAROLINA MEDICAL ASSOCIATION

Receipts:

Balance in Bank Jan. 1, 1924	\$ 414.38
Back dues	104.00
Membership dues	3,046.00
Deficit	.25
	<hr/>
	2,564.63

Disbursements:

Salaries	\$ 199.55
Office expenses	312.00
Stamps	50.00
Printing	1,007.71
Sundries, railroad fare, hotel, etc.	345.31
Balance in Bank Dec. 31st, 1924	650.06
	<hr/>
	2,564.63

Statement of Assets:

Cash in Bank	\$ 650.06
Office Furniture and Fixtures	200.00
Simms Memorial Fund	86.81
	<hr/>
	\$ 966.87

NUMBER OF MEMBERS BY COUNTIES

Abbeville County	6
Allendale	6
Anderson	41
Barnwell	8
Bamberg	10
Chester, Hon. (3)	15
Cherokee	10
Chesterfield	9
Charleston, Hon. (7)	81
Clarendon	7
Colleton	7
Darlington	18
Dorchester	8
Dillon	13
Columbia, Hon. (7)	77
Edgefield	8
Fairfield	2
Florence	14
Georgetown	7
Greenwood	17
Greenville, Hon. (3)	70
Horry	2
Kershaw	11
Lexington	5
Laurens	21
Marion	4
Marlboro	15
Newberry	20
Orangeburg	33
Oconee	15
Pickens	19
Sumter	23
Saluda	8
Spartanburg	48
Union	12
Williamsburg	11
York	28
Total	<hr/>
	710

The President expressed his appreciation of the honor conferred upon him in his election to this office, and his pleasure in working with the other officers of the Association, particularly the Secretary, Dr. E. A. Hines, and the district officers throughout the state.

Dr. Hines read his report as Secretary-Treasurer, which, upon motion, was received and ordered spread on the minutes.

Upon motion of Dr. N. B. Edgerton, duly seconded, it was voted that a committee be appointed by the President, to be known as the Public Affairs Committee, to look into the matters mentioned by the Secretary-Treasurer in his report, particularly the matter of securing a full-time Secretary-Treasurer for the Associa-

tion, this committee to report next year. The President announced that he would appoint this committee later.

The report of the Board of Councilors was read by Dr. S. E. Harmon, Chairman, who added the following as part of the report:

I wish to call your attention to the receipts from advertising, which are \$300 more than last year.

Your Board of Councilors met this evening and discussed various and sundry things that came before us. One of the matters was this new journal. I presume a great many of you, if not all, received a copy of this new journal. You will note the difference in appearance from the old journal, and the difference in size. We are not quite sure just what this new journal is going to cost; possibly it will cost a slight bit more than the old. In our meeting we approved this journal, and a committee was appointed, consisting of myself, your State Secretary, and the Councilor of the Fourth District, to take this matter up with the printer and do the best we can. We think our journal compares very favorably with the other State Journals. Our Secretary informed us that the American Medical Association is going to place a man in this field to take up the work of increasing the advertising—I mean legitimate advertising for our journal. That will in all probability increase our revenue.

I wish to state that in our meeting we decided to elect our associate editorial staff annually. That means that we may re-elect some of the members or we may not; it depends upon circumstances. We have had some very good work by some of the associate editors, and of course there are some who have not done so well.

We find there is a rather large percentage of men who are eligible for membership in the different counties that are not members of the local associations, and we think that it would be well for each member to make himself a committee of one to increase the membership in our county societies.

Another matter came before us that we discussed—the question of newspaper advertising, a man's name appearing in the newspapers in connection with cases. Most of you know that the medical profession criticises that. We discussed it and went on record as condemning it, and thought it would be well to call the attention of the House of Delegates to it. Possibly some of the men do not know that it is considered unethical, and possibly with some of those who do know a little stimulus will bring about improvement in this matter. The Coun-

cil approves of more Clinics and a shorter paper reading program.

On motion, duly seconded, the report of the Councilors was received.

The report of the Committee on Scientific Work was read by the Chairman, Dr. F. H. Dieterich, and, on motion, was adopted.

Report of Councilors

First District—Dr. A. E. Baker, Sr., Charleston, Councilor. As Councilor of the First District I respectfully submit the following report:

This district is composed of six counties—Charleston, Colleton, Berkeley, Beaufort, Dorchester, and Jasper.

The Charleston Medical Society has on its roll 79 members, and meets twice a month, with an average attendance of 35. There are four eligible members not on the roster, and two illegal practitioners (chiropractors).

The Colleton County Medical Society is organized, but not very active. The physicians are few, and live far apart. No irregularities or discord have been reported.

The Dorchester County Medical Society is well organized and holds meetings every month. Its membership sustained a serious loss during the last year in the untimely death of one of its most active members, Dr. Carl Johnston.

Beaufort County is not organized. There are only eleven physicians in this county and they live too far apart to be organized. All efforts have failed.

Jasper County has two physicians; Berkeley County only one. That explains why these counties are not organized.

Second District—Dr. S. E. Harmon, Columbia, Councilor:

In submitting my annual report as Councilor of the Second District, comprising the counties of Calhoun, Edgefield, Lexington, Richland, and Saluda, I beg to say that I have visited most of the county societies, all but about one of which have regular meetings, and are working harmoniously together. I am informed that we have no illegal practitioners in our midst, but quite a number of quacks, especially in Columbia. We have a very active district society that meets twice a year. These meetings are always well attended, and there is an abundance of well prepared material for discussion.

Third District—Dr. T. L. W. Bailey, Clinton, Councilor:

I herewith submit my report of the Third District Medical Association. This district is composed of Abbeville, Greenwood, Laurens, McCormick, and Newberry Counties. It gives

me great pleasure to report all our counties doing fine work. We are all alive and organized, and the working power and percentage of regular meetings and attendance have been good. I am especially pleased to note the enthusiasm and interest manifested by the younger physicians in the district.

McCormick reports one hundred per cent. membership in the county.

The Third District Medical Association will convene at McCormick at its next session, and we expect to have a very attractive program. We have annual conventions and the programs of these meetings are excellent. The last meeting was held at Abbeville, with a splendid attendance and interesting papers.

The Laurens County Medical Society has adopted the luncheon plan for its regular meetings, and at different dates we meet in the different towns of the district.

We are grieved to report the loss by death of Dr. C. C. Gambrell, of Abbeville, who was president of the association, and secretary of his county society, at the time of his death.

I wish to note that we have five organized and well equipped hospitals in the district, and from what I can learn they are all doing well. It is a splendid opportunity to the general public to have these necessities so convenient for their service.

We have report of no new illegal practitioners at this time. We have a few regular practitioners not on the roll of the association.

I consider the Third District a live wire, and one of the gems of the whole state.

Fourth District—Dr. J. R. Young, Anderson, Councilor.

The Fourth District is composed of seven counties—Cherokee, Union, Spartanburg, Greenville, Pickens, Oconee, and Anderson, and has a medical population of about three hundred.

The Fourth District Medical Society meets annually. These meetings are well attended, and good programs are carried out. It is the policy of this society not to have invited speakers of note on its programs, but to encourage its own members in presenting papers.

Your Councilor has visited all the county societies in this district except Cherokee. In them all regular meetings are held, with an attendance varying from twenty to eighty per cent.

There are about forty doctors in this district who are not members of the society. Recently your Councilor and also your State Secretary wrote all of these men, urging them to join

their respective county societies, and several of them have since joined.

There are a few illegal practitioners with us. A few months ago one of these was prosecuted, convicted, and sentenced to spend one month in jail. If the regular practitioners in the medical profession presented to the public a more solid and unified front, with fewer jealousies and dissensions among its own members, it would be easier to handle the problem of illegal practitioners. As it is, the public and the courts think that "You doctors proverbially disagree", and the case in hand is only another illustration of this truth.

Fifth District—Dr. T. N. Dulin, York, resigned as Councilor. No report.

Sixth District—Dr. C. R. May, Bennettsville, Councilor.

The Sixth District comprises the counties of Florence, Darlington, Chesterfield, Marlboro, Dillon, Marion, and Horry.

The Florence County Medical Society meets monthly. There are two illegal practitioners in the county. The Secretary, Dr. L. B. Salters, reports that they have reorganized recently and hope to take on new life. Both interest and attendance were below par during 1924.

Darlington County has twenty members on its roster, two of whom are retired. It holds four meetings during the year, with an average attendance of ten. There are four eligible members not on the roster. There are no illegal practitioners in the county. The Secretary, Dr. Julian T. Cogshall, says: "This bids fair to be one of the best years for this society since its reorganization in 1904, as the members seem to be taking more interest in the meetings."

Chesterfield County has ten members on the roll, with an average attendance of five. They have five meetings during the year. There are eight eligible members not on the roster, and one illegal practitioner in the county. The Secretary, Dr. R. M. Newsom, says: "We have had two especially good meetings, well enjoyed by all."

Marlboro County has fourteen members on the roll, and meets monthly, with an average attendance of seven. There is one eligible member not now on the roster. No illegal practitioners in the county. The Secretary, Dr. D. D. Strauss, says: "The annual New Year's meeting, with its instructive papers by invited guests of recognized ability, and the large attendance of distinguished visitors, is a big event for the Society, and is generally enjoyed by all."

Marion County has twelve members on the

roll, and meets five times a year, with an average attendance of five. There are no illegal practitioners in the county. There are three eligible members not on the roster. The Secretary, Dr. Hawkins K. Jenkins, says: "The new Reaves Township Hospital will open next week."

Dillon County has not made an official report, as the meeting scheduled to take place before the State meeting was postponed on account of illness in the family of a physician at whose home the meeting was to take place. I am assured that it will take place in a few days and the election of the new officers and other data will be reported to the State Secretary.

Horry County. During 1924 this county has carried on its medical activities in the Little Pee Dee Medical Society.

The Pee Dee Medical Society, the official society of the Sixth District, meets once a year at Florence. It is noted as being one of the oldest medical societies in the state; also for its splendid scientific programs and large attendance.

In July, 1922, the counties of Dillon, Marion and Horry organized the Little Pee Dee Medical Society, which has thirty-four members. Dr. Z. G. Smith is President, and there is a vice-president from each county. Dr. Walter Green is secretary. They meet bimonthly, and always have a large attendance and a good dinner. I think this is one of the liveliest and most progressive societies in my district. I am delighted with its progress, and think it should be congratulated on the good work it is doing.

I am very much pleased with the progress made by the societies in this district, and feel that the outlook for 1925 is very promising.

The Sixth District had a sad loss in the death of Dr. J. S. Napier, of Blenheim, S. C. He was one of the oldest members of the profession in the state.

Seventh District—Dr. T. R. Littlejohn, Sumter, Councilor.

Clarendon County: Number members on roll, nine. Three meetings during the year; average attendance five. One eligible member not on roll, and one illegal practitioner in the county.

Lee County: Number of members on roll, eight. One meeting during the year; average attendance four. Three eligible members not on roll; no illegal practitioners in the county.

Williamsburg County: Number of members on roll, eleven. Three meetings during the year; average attendance six. Five members eligible not now on roll, and one illegal practitioner in the county.

Sumter County: Number of members on roll, twenty-one. Nine meetings during the year; average attendance twelve. One eligible member not now on the roll; no illegal practitioners in the county.

Georgetown County: Number of members on roll, seven. Four meetings during the year; average attendance five. Five members eligible not now on roll; no illegal practitioners in the county.

Eighth District—Dr. C. I. Green, Orangeburg, Councilor.

The Eighth District comprises the counties of Hampton, Allendale, Barnwell, Bamberg, Aiken, and Orangeburg, all of which are organized and working harmoniously together, except Hampton, which has no organization.

I visited all of the counties during the year and was gratified to observe the *modus operandi* of each society, and to find the spirit of fraternalism existing.

Barnwell County reports a membership of eight;-----meetings held during the year; attendance sixty per cent.; eligible members not on roster, three.

Aiken County reports a membership of seventeen; number of meetings, one; attendance, twenty-one per cent.; eligible members not on roster, eight. This county was reorganized the first part of the year, and a spirit of cooperation seemed prevalent.

Allendale County reports seven members on the roll; ten meetings during the year; attendance seventy-five per cent.; eligible members not on roster, three.

Bamberg County reports nine members on the roll; twelve meetings held during the year; attendance ninety per cent.; number of eligible members not on roster, three.

Orangeburg County reports thirty-four members on the roll; six meetings held during the year; attendance, sixty-five per cent.; eligible members not on roll, six.

The district society did not hold a meeting during the year, owing to the prolonged illness of the secretary.

There is a well equipped hospital at Orangeburg which is doing good work. An annex of thirty rooms has just been completed.

The reports of the councilors adopted.

The report of the Committee on Public Policy and Legislation was read by the Chairman, Dr. M. H. Wyman, and that of the Special Committee on Illegal Practitioners was read by Dr. F. H. McLeod. These reports were discussed by Drs. Davis, S. E. Harmon, Frank Lander, J. B. Townsend, W. A. Tripp, and W. P. Timmerman. Dr. Lander moved that the Committee on Pub-

lic Policy and Legislation be instructed to write to the Governor and ask him to request the solicitors to look out for illegal practitioners, prosecute them, and convict them if possible. This motion was carried.

Dr. W. M. Lester read the report of the State Board of Health, which was adopted.

The report of the Committee on Health and Public Instruction was read by the Chairman, Dr. R. J. Beachley, and was adopted.

The report of the Board of Medical Examiners was read by Dr. A. E. Boozer. Dr. J. T. Taylor, President of the Board, made a statement in regard to a rumor circulated by Dr. George Frazier Wilson to the effect that copies of the State Board examination were on sale at the time of the examination, Dr. Wilson stating, in reply to an inquiry by Dr. Taylor, that he had received his information from Dr. Rodgers. Dr. Taylor filed copies of letters and other correspondence with Dr. Wilson and Dr. Rodgers and asked that they be made part of the permanent record of the Association. On motion of Dr. C. W. Kollock, his statement was received and this request was granted.

Dr. E. A. Hines made the following report as Delegate to the American Medical Association:

One matter to which I wish to call your attention is an amendment to the by-laws of the American Medical Association which is now pending. If adopted at the meeting in Atlantic City, next month, as it doubtless will be, the membership of the House of Delegates will be increased from 150 to about 175. It is just possible that with this enlargement South Carolina will have two delegates, as it formerly had, instead of one.

There is a certain privilege in connection with fellowship in the American Medical Association which I wish to mention. Fellowship does not necessarily require the taking of the Journal of the American Medical Association. You are at liberty to take any one of a half dozen other journals, on the subjects of diseases of children; dermatology; surgery, eye, ear, nose, and throat; internal medicine, etc.

The American Medical Association has grown to be one of the greatest medical organizations, with a fellowship membership of about fifty thousand, and an affiliated membership of about ninety thousand.

On motion, the report was received as information.

Dr. F. H. McLeod, Chairman, read the report of the Committee on Efficiency and Standardization of Hospitals, which was received as information.

Dr. Hines, Chairman of the Committee on

Constitution and By-Laws, requested that this committee be permitted to defer its report, in view of the fact that a special committee had been appointed by the American Medical Association to revise the state constitution model and report at the Atlantic City meeting. On motion, the Committee was continued.

The following report of the Committee on Military Affairs was made by Dr. C. B. Earle, Chairman:

I have learned that we have 108 officers in the Medical Reserve Corps. Unless Congress passes a law extending the time of admission, there is probably no chance of increasing the number in the Reserve Corps, except among the younger men, and with them there is a hesitancy in offering because there is an impression that they will be called out for active service against their wishes. So far as I know that will not be done. The contrary is true; the number of applications for active duty each year is larger than can be granted, because of small appropriation. We have in the reserve corps of this state 1029. That includes the medical corps, artillery corps, and others. In proportion to population we rank about with Maryland, and are exceeded only by Georgia. We rank far ahead of North Carolina. I would urge members of this Association to assist the War Department to the extent of getting the younger men into the Medical Reserve Corps. That is the cheapest insurance against war.

In Greenville we have organized a reserve officers' association. There are 170 officers there—the largest number in any city of similar size in the United States. Columbia, Florence, Spartanburg, and others of the larger towns should organize such associations.

Dr. W. P. Timmerman read the report of the Committee on Necrology, which was received by a standing vote. The names of Dr. R. H. Pierce, of Florence; Dr. North; and Dr. Wilhite, of Anderson, were added to the list of deceased physicians. It was stated that Dr. Wilhite died three or four days ago, having been a member of the Association for over thirty years.

The Secretary read a letter from the American Medical Association, just received by special delivery, in regard to the reduction of Federal taxes affecting the medical profession. On motion of Dr. N. B. Edgerton, the Secretary was instructed to carry on all necessary correspondence.

The Secretary then read a communication from Dr. T. N. Dulin, dated December, 1924, tendering his resignation as Councilor of the Fifth District. Dr. Dulin's resignation was accepted with regret.

The following officers were elected:

President: Dr. Robert S. Cathcart, Charleston.

First Vice-President: Dr. W. B. Lyles, Spartanburg.

Second Vice-President: Dr. J. H. Cannon, Charleston.

Third Vice-President: Dr. R. C. Bruce, Greenville.

Secretary-Treasurer: Dr. E. A. Hines, Seneca.

Councilors

First District: Dr. A. E. Baker, Charleston (Re-elected).

Third District: Dr. T. L. W. Bailey, Clinton (Re-elected).

Fifth District: Dr. J. R. DesPorts, Fort Mill.

Seventh District: Dr. T. R. Littlejohn, Sumter (Re-elected).

Members Board of Medical Examiners

Dr. J. T. Taylor, Adams Run.

Dr. Frank Lander, Williamston.

Invitations for the next meeting of the Association were extended by Dr. H. L. Shaw, Sumter; Dr. Bruce, Greenville; Dr. Townsend, Anderson; and Dr. M. H. Wyman, Columbia. The invitation to Sumter was accepted.

The House of Delegates then adjourned sine die.

ABSTRACTS

ABSTRACT of paper on "Unperforated Ulcers of the Terminal Ileum, Symptomatically Simulating Appendicitis", read at the meeting of the American Medical Association before the Section of Surgery, General and Abdominal, at Atlantic City, N. J., May 27, 1925, by J. Shelton Horsley, M. D., Richmond, Virginia.

The symptoms of appendicitis are discussed. The appendix has a wide range of locality. When in its normal position the inflamed appendix gives the typical symptoms of pain beginning in the epigastrium or around the navel, with subsequent pain, tenderness and muscle spasm in the right iliac fossa. When abnormally placed it may cause pain and tenderness in the median line, the pubic region, along the iliac crest or around the gall-bladder. On the other hand, any one of many other diseases may give the symptoms of appendicitis and must be differentiated. Symptoms, however, which are due to a lesion in the intestinal tract near the appendix may closely simulate those of appendicitis and are more difficult to distinguish. The importance of bearing in mind such lesions is emphasized. Operations for appendicitis are sometimes undertaken without due regard for the possibilities of other lesions of the gastro-intestinal tract, and the surgeon should be competent to deal with any other surgical condition that may be present.

Three cases are reported with symptoms of appendicitis having tenderness and muscle spasm in the right iliac fossa. A diagnosis of

appendicitis was made in each case. In two, at operation a solitary tuberculous ulcer was found in the ileum, and a resection of the terminal ileum with appendectomy was done. The third patient, a boy ten years of age, was admitted to the hospital with a diagnosis of acute appendicitis. At operation the appendix was found to be moderately congested and was removed. The terminal ileum was greatly enlarged and congested. About nine inches of the ileum and the cecum and part of the ascending colon were resected. Grossly the lesion appeared to be tuberculous, but careful microscopic study showed the tissue to be simple inflammatory. All three cases made a satisfactory recovery.

The technic of resection of the terminal ileum is discussed. The method to be used depends largely upon the local conditions. The active peristalsis and the small amount of bacteria in the upper jejunum demand different methods of procedure from those indicated in the more slowly acting ileum whose contents are filled with bacteria. Thus, in the lower ileum it is important to use a technic which will prevent contamination, even though it gives a smaller lumen of the bowel, while in the upper jejunum with fewer bacteria, the importance of an ample caliber dominates the situation. The technic of Kerr is excellent in many of these cases of resection of the lower ileum, but when there is much fat a lateral anastomosis should be done. If there has been obstruction or if the cecum and colon are included in the resection, an enterostomy with a soft rubber catheter seems indicated.

CORRESPONDENCE

Columbia, S. C.
July 9, 1925.

Dr. E. A. Hines,

Editor of the Journal of the S. C. Med. Assn.
Seneca, S. C.

Dear Dr. Hines:

I feel that an explanation is due the readers of the Journal so beg that you publish this letter in the next issue.

You will recall that I wrote you shortly after the Association meeting in April at which the paper "Cancer as Viewed by the Ancients" was read by me asking that when this paper was published it appear as a translation by Dr. Geo. W. Manly of Columbia, S. C., from the monumental work by Dr. Jacob Wolff of Berlin "The History of Cancer". At the same time I said that if you so wished, my name might appear in a "footnote" as having read this paper in the symposium on Cancer.

Furthermore, at the time of its reading I was quite particular to state the facts as mentioned above and to disclaim any originality for its contents as attributable to me.

Appearing under the heading "Original Articles" as it does in the journal, one is led to believe that it represents my own efforts, whereas, it does not in any sense of the word.

May I state again that the entire credit is due Dr. Jacob Wolff (whose book may be imported for the small sum of \$35.00) and Dr. Geo. Manly for the translation.

Thanking you for the courtesy, I am

Yours very truly,

J. H. Taylor, M. D.

CORRESPONDENCE

Greenville, S. C.
May 26, 1925.

Dr. E. A. Hines,

Seneca, S. C.

Dear Doctor:

At the time when many vaccinations are being made over the state and many "shields" are being exploited by persons profiting by their sale, I think it proper to publish this clipping from the Public Health Service.

The worst arms that I have seen for years have been those in which the shields have been used after vaccination.

A simple device consisting of a firm roll of gauze or cotton cloth about the size of a lead pencil and 5 or 6 inches long the center of which is secured by adhesive tape about $\frac{3}{4}$ of an inch above the scarified spot; the free ends being bent down in the shape of a horse shoe, are secured by another strip of plaster. In this way the pustule is fairly well protected and is permitted to dry.

(Signed) Davis Furman.

Tetanus from Vaccination Dressings.

The Public Health Service deprecates the use of any kind of shield as a vaccination dressing. The employment of such a shield tends to prevent evaporation; to retain heat, moisture or discharges, with a consequent softening of the vesicle; to obstruct lymphatic drainage; to produce hyperemia, and to create conditions apparently favorable for the development of bacterial invasion, especially by the tetanus organism. The smallest single site insertion compatible with a successful take and with no immediate dressing whatever is believed to be the best method of vaccination in the majority of cases.—*Pub. Health Rep.* 40:559 (March 20) 1925.

SOCIETY REPORTS

(Continued from page 172)

DISTRICT PHYSICIANS AT ANNUAL MEETING

Interesting Papers Read—Dr. Dreher of St. Matthews Made President

Special to The State.

Ridge Spring, July 16.—The annual meeting of the second district medical association of South Carolina was held here yesterday in the large auditorium of the high school building. The meeting was presided over by Dr. M. H. Wyman, president.

After the discussion of clinical reports, a very interesting paper was read by Dr. R. E. Seibles with illustrations, on "Premature separation of Placenta." Dr. E. D. Andrews read a paper on "Lymphatic diseases of Children," which was discussed by Dr. E. W. Barron and Dr. Dotterer, while voluntary reports of patients and conditions were made by other prominent physicians.

Nervousness and some facts about cancer were ably discussed by Dr. C. R. F. Beall and Dr. Julius H. Taylor. Dr. LeGrand Guerry made a very interesting talk on the thyroid gland. Dr. Heyward Gibbes made an interesting lecture on prominent disorders, accompanied with lantern slide illustrations.

The death notice of Drs. Outze, Edgerton, Marsh and Mobley was read and all members stood, with bowed heads for a short period, reflecting the memory of the deceased members and regretting their passing from their ranks.

A regular dinner was then served by the resident physicians, all of whom were present and acted as hosts to the 60 or 70 visiting physicians. After dinner, Dr. Cathcart, president of the South Carolina medical association made a very interesting address which was followed by an humorous talk by Dr. "Ned" Parker of Charleston, which was very much enjoyed and caused merriment.

Dr. J. P. Leake, federal medical man, sent to the state, to assist in the fight against infantile paralysis, also spoke.

After the transaction of unfinished and new business, the election of officers for the ensuing year was entered into with the election of Dr. T. H. Dreher of St. Matthews as president and Dr. F. G. Asbill of Ridge Spring, vice president and Dr. F. M. Routh of Columbia, secretary and treasurer. Columbia was selected as the next meeting place which is to be held in January.

With pride the people of Ridge Spring feel complimented by the meeting having been held here and did the best to entertain in their most hospitable way.

NEWS ITEMS

THIRTY-FIVE NEW DOCTORS

At the June meeting of the State Board of Medical Examiners the following were licensed to practice medicine in South Carolina:

F. N. Andrews, Marion; J. A. Baird, Welfare Island, N. Y.; M. C. Block, Darlington; M. C. Brackett, Clemson College; H. P. Burbage, Charleston; B. R. Carroll, Columbia; O. J. Champion, Columbia; T. H. Clarke, Jr. Sumter, J. W. Clotworthy, Honea Path; J. M. Davis, North; W. W. Edwards, Due West; D. M. Evans, Dillon; C. C. Freed, Newberry; J. S. Gasin, Kershaw; T. G. Goldsmith, Fountain Inn; R. E. Harper, Kingstree; O. J. Hart, Johns Island; D. O. Holman, Cameron; T. J. Hopkins, Hopkins; P. G. Jenkins, Charleston; M. P. Kennedy, Beaufort; J. S. Lewis, York; F. L. Mabry, Abbeville; M. C. Martin, Charleston; C. H. McCants, Charleston; L. P. O'Donnell, Anderson; B. M. Palmer, Timmons ville; L. R. Poole, Travelers Rest; M. I. Rubin, Charleston; C. P. Ryan, Ridgeland; J. H. Sanders, Sumter; J. N. Walsh, Charleston; J. D. Whaley, Orangeburg; G. A. Williamson, Mullins; H. E. Wyman, Charleston.

Osteopath: T. M. Enright, Anderson.

SPARTANBURG

(Continued from page 158)

the institution to which we now minister, is a testimony of his effort to serve afflicted humanity, and is largely a monument to his zeal and untiring energy.

The feeding stations established and maintained by him in the mill villages bear evidence of his great love for little children and his desire to better their condition, and

The Duncan Park addition to the Play Grounds of Spartanburg is a token of his deep interest in the community life of his home city.

To his wife and family, we extend the deepest sympathy in our mutual loss.

We dedicate a page in our Minute Book, TO THE MEMORY OF JAMES EDWARD EDWARDS, M. D., and order; that a copy of this testimonial be sent to his wife and family of our deceased brother, this July 10th, 1925. Under hand and seal of:

The Medical Staff of Spartanburg County General Hospital, J. J. Lindsay, M. D.,
W. W. Boyd, Secretary. President.

WANTED

1000 members for 1926. Only 43 members needed to reach the goal of one thousand enrolled in the South Carolina Medical Association. Success is in sight at last! Slogan for the Sumter meeting "1000 in 1926."

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The Journal

of the

South Carolina Medical Association

VOL. XXI.

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The Journal

OF THE

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EDGAR A. HINES, M. D., F. A. C. P., Editor-in-Chief, Seneca, S. C.

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EDITORIAL

VALUABLE BOOKLET ISSUED BY CHARLESTON SOCIETY

The Medical Society of South Carolina under the Presidency of Dr. C. P. Aimar has just issued to the members of the Society a most interesting certificate of admission, beautifully bound and containing much information invaluable to each member. This Society was founded in 1789 and is therefore one of the oldest medical societies in the United States. Among other things we note a schedule of fees adopted May 26th, 1925. It is a volume of about sixty pages and we are confident that as a working tool, ever at hand, the members of this Society will be in a position to render still greater service, not only to the local organization, but to the State Association. We note also that the seal of the Society was adopted in the year 1789 and has been in use

ever since. The description of which may be found on page 43 of the minute book.

It consists of a circular disk in the center of which is the head of Dr. Benjamin Franklin and around the edges the latin words: "Sigillum Societatis Medicae Carolinae Australis."

HOSPITAL ACTIVITIES

We are indebted to Dr. Baxter Haynes of Spartanburg for a copy of the Spartanburg Sun of August 3rd, giving the details of the magnificent gift of Dr. and Mistress Henry Norris, owners of the Rutherford Hospital, N. C., which includes the buildings and equipment their magnificent home and two hundred acres of fine farm and park land in the edge of the city to Rutherford County to be used for hospital purposes in perpetuity. Included in the gift is the one hundred thousand dollars sup-

ply of radium presented to the hospital some years ago by Mr. J. C. Plonk.

This wonderful hospital has had a marvelous growth. South Carolina is interested inasmuch as Rutherford County adjoins Spartanburg County in which another splendid county hospital exists.

HOSPITAL FOR CRIPPLED CHILDREN

The decision of the Shriners to erect a hospital for crippled children at Columbia will be gratifying news not only to the physicians of South Carolina but to the public as well. There are more than two thousand crippled children in this state and the facilities for treatment are entirely inadequate.

HOSPITAL FOR TUBERCULOUS CHILDREN

Due to the activities of the South Carolina Federation of Womens Clubs, to many interested physicians, and to the response of an appeal for funds by the last legislature, children with pulmonary tuberculosis and in time probably other forms of tuberculosis will in a few months have access to the new tuberculosis hospital under construction at State Park. The Legislature appropriated twenty-five thousand dollars for this purpose. The building will be a separate unit from the other two hospitals at State Park for adults, white and negroes. It occupies a magnificent site conducive in every way to the success of the institution. The members of the building committee are as follows: Dr. William Egleston, Hartsville, Dr. James A. Hayne, State Health Officer, Dr. E. A. Hines, Seneca and Mr. Fred Camp-

bell of the State Health Department. At the present time there are about thirty patients on the waiting list for admission to the new hospital. To begin with the capacity will be about twenty-four beds. Naturally it is hoped to increase this capacity, double it in fact at an early date.

FOURTH DISTRICT MEETS AT UNION

The Fourth District Medical Association comprising the counties of Anderson, Cherokee, Greenville, Spartanburg, Union, Pickens and Oconee will meet at Union on September 15th. Dr. B. A. Henry of Anderson is the President and Dr. L. Rosa H. Gantt of Spartanburg is the Secretary-Treasurer.

The program promises to be one of the best ever presented by the Society. The Fourth District is one of the largest district societies in the Southern States. There are about three hundred members. We are confident that the medical profession of Union County and the citizens generally will provide every means possible to make the meeting a great success. A magnificent new hotel has been under construction for some time and it is possible will be completed before September 15th. Union has a splendid new hospital with clinical facilities available for interesting cases. Many other improvements have been evident in Union in recent years. We urge therefore every physician in these six counties who possibly can do so to take a day off and enjoy the feast of good things provided on the appointed occasion.

ORIGINAL ARTICLES

TRENDS IN PUBLIC HEALTH WORK

By Harry S. Mustard, M. D., Murfreesboro, Tennessee, Director Child Health Demonstration (Commonwealth Fund).

In common with many other applied sciences, public health work is in a fluid state. It is subject to the same degree of fluctuations as are the fundamentals upon which it is based. There are, however, certain outstanding trends and developments, worthy of attention and interesting in their interpretation.

One asks, "What is public health?" The answer will depend upon the perspective of the person replying. To the pink uplifter the public health worker is a suave individual who addresses mothers' clubs; to the tax payer, public health workers are garbage gentlemen who neglect their duties; to certain of the medical profession the public health department is an organization enlisted to fight epidemics, equipped with peculiar and vague police powers—and with nothing else; to certain others of the medical profession the public health movement is the advance guard of State Medicine. Were all of these answers correct we should have a weird hybrid indifferent to all virtues, but keenly concerned with doing as much damage as ability and opportunity might allow. None of these answers are satisfactory, and yet all of them are more or less natural reactions.

Before one may partly understand and sympathize with the wanderings, the efforts, the failures and accomplishments of public health work one must have some knowledge of the pedigree, gestation, birth, early infancy and schooling of this comparative youngster. The ancestry of the public health movement goes far back into history. In ancient writings there are many allusions to plagues and pestilences. The shunning of lepers was an early manifes-

tation of the knowledge that if the sick were not separated from the well, dire results might follow. Aristotle had a fairly definite conception of the "contagiousness" of certain diseases, and in the middle of the sixteenth century Fracastor divided communicable diseases into those transmitted "per contactum" or directly and those conveyed "per fomitem" or indirectly. The recognition of the fact that one sick individual might be the cause of thousands of deaths from a similar disease was perhaps the conception that led to public health work.

Coincident with the development of these embryonic thoughts two other factors played an important part. One was the recognition of the possibility of preventing smallpox by the contraction of cow-pox, and thus was begun the fight for specific immunity. The second factor was the work of Pasteur and his predecessors when bacteriology opened up a new field for speculation and for the interpretation of facts previously shrouded in mystery. As the light of bacteriology illumined the dark corners of the etiology of many of these so-called contagious and infectious diseases, thought was given to the possibility of the control of such diseases by killing out the causative factors. The reason why disease was transmitted from sick to well was now understood—and public health work was born.

For many years, in fact until comparatively a few years ago, public health work was limited to such activities as might prevent epidemics. This, though unfortunate, was quite natural. An epidemic is something dramatic; and the medical profession, being entirely human, was drawn into this enticing and, within its limitations, satisfactory field of endeavor. However, in our interest in the control of communicable diseases we lost or disregarded a number of very essential things. First of all, we lost our sense of relative values; secondly, we sloughed off certain scientific criteria, and lastly, because frequently we were working in a field bristling with politicians and a misin-

formed public, we made many compromises. The fact that the public health worker considered communicable diseases as the Alpha and Omega of public health activities is an excellent illustration of carelessness in evaluating problems in this field. The fact that we have blindly plunged ahead in the wake of the fallacy "post hoc ergo propter hoc" is evidence of our unscientific approach; and the fact that public health departments continued to remove garbage as if this were sacred duty, is conclusive proof that we have been influenced unduly by the public's attitude that what smells badly or looks badly is detrimental to health.

Such, in brief, is the public health movement up to the last decade or two. And then things commenced to change. As to exactly how, when and why this change came about we are unable to say. We do know though that within the medical profession certain misgivings were felt as to rationale of waiting for irremediable pathological processes. We do know that in the educational world certain pioneers began questioning the advisability of giving to the child minute data as to the structure of the tooth, when it was known that that child had never seen a tooth brush in his life. And finally there came into the public health field the biometrist, the man who was not concerned with your objectives, or sincerity or belief, but who reduced everything to figures and who called upon all the gods of mathematics to witness that you had no right to make the assumptions that you had made. Then there ensued turmoil. The public health field became literally cluttered up with half baked enthusiasts on the one hand and hard-boiled scoffers on the other. Efficiency experts walked in briskly with the avowed hope of building public health machines, and it must be admitted that many of them were successful in building such machines; but it is unfortunate that their end was to build a machine; to develop a health department with filing cases, push buttons and inter-office memoranda and conferences. This sounds very modern and efficient. There was only one draw-back; it was such a job to run the machine that nobody had any time or energy left to produce. In developing a means, the

end was lost sight of and the means became an end unto itself.

From this unfortunate predicament public health work is now arising. It is arising with a broader field of endeavor. It believes that any factor actually or potentially a menace to the health or life of a large percentage of the public is a problem demanding its attention. Such problems may lie in the morbidity rate of diphtheria or in the mortality rate of arteriosclerosis; and in the search for causative factors and remedial measures we may delve into eugenics, touch economics, plunge into the highly specialized field of nutrition, consult with scientific medicine, especially the pre-clinical phase, and not end until the statistician has studied many past generations with due regard to heredity, environment, age, sex, race, and other causal or significant factors.

The modern health department, exemplifying public health work, is only a means to an end. It is only the bridge spanning the space separating unapplied knowledge from the benefits to be derived from the application of such a knowledge. The backbone of public health is medical knowledge, but procedures go beyond the medical field. Such a modern health department must link up closely with the educational field so that not only is health knowledge carried to the younger generation but carried with a clear concept of child psychology and accepted pedagogical methods. Heretofore the doctor has had the knowledge but knew not how to impart it. The educator has known all about teaching methods but has not been equipped with the necessary information on the subject to be taught. Each field is borrowing from the other and with a fine correlation of effort, health teaching is being woven into our elementary, high and normal schools. Likewise the public health worker goes out and rubs elbows with the journalist, with the newspapers and with publicity men; not for the purpose of cheap advertisement, but in an effort to gain a knowledge of public psychology and in light of this knowledge to get his message over to the public in such a way and at such times as will contribute to the end constantly in view, better health for more people. And then the public health depart-

ment calls in the biometrist making him the yard stick for measuring results. This biometrist is an unemotional sort of individual to whom cube root, calculus and logarithms are mere play things. He plots his curves with magnificent lack of premeditated conclusions and lets chips fall where they may. To tell such a one that a high infant death rate in a given place is due to density of population immediately gets the query from him as to whether all other factors such as poverty, ignorance, carelessness, heredity, etc., have been entirely eliminated as items playing a part in the problem. Such reasoning is irritating when one has a pet conclusion assailed, but the coming of the high grade statistician into health work has been a most salutary thing. These are some of the alliances that public health has formed in its struggle to do a definite piece of work. Activities are of value only as they produce results and are justified only with this conception.

Public health work has nothing to do with indigency. Free clinics are justified as a part of public health only when they are educational in nature, or when they are set up to give treatment for conditions of such nature that if treatment were withheld an individual, or groups of individuals, might serve as a menace to the public health. In such cases where public health authorities render actual treatment the benefits to the individual are of secondary importance. It is similar to the disinfection of water supplies. We do not chlorinate drinking water because it benefits the water but because it prevents disease in the public. We do not give salvarsan to the prostitute because we are deeply concerned about her welfare, but because she is a community focus of infection that demands removal. It is true that free clinics will always be necessary, but such service is as definitely charity as is a load of coal or a sack of flour. It is not public health.

Public health is coming back to medicine. The journey, though not yet complete, has been undertaken. In many ways the relation between medicine and public health work is similar to the relation between the father and son who has strayed away. This youth, bound by many ties, is coming back home. He will come not altogether as one who has made a failure, but rather as one who has formed many alliances strange to the parent but valuable to the youngster; he comes back with a deep and wholesome respect for the wisdom of the older member of the family.

My plea to you, then, gentlemen, is this: Do not regard the public health movement as a thing apart from medicine. Without the medical profession's interest the community cannot be served. If every physician were to take seriously his obligation to develop specific immunity in his patients, to give careful prenatal observation, to insist upon periodic observation of the well child, to become interested in the pre-clinical phase of medicine and to give the same care to the examination of the apparently well man that he does to the clinical case, the drop of the morbidity and mortality rate would be astonishing. There would still remain plenty for the medical men to do in the curative field, and plenty for the public health worker to do in a supplementary field. Time has passed when public health is satisfied with a grey bearded sanitary inspector poking in the backyard trash, or with a vital statistician making duplicates of birth and death certificates simply for the filing thereof.

With the relations that I know exist between this local medical society, the Medical College and the hospital, this city has an opportunity of developing public health work of the highest order. Your results will be directly in proportion to what you demand of others and of yourself.

CANCER FROM THE STANDPOINT OF THE GENERAL PRACTITIONER

By Robert Wilson, M. D., Charleston, S. C.

That cancer is on the increase in civilized countries seems sufficiently attested by statistical studies. The cause, or causes, of this increase is a matter of speculation. A comparison of the frequency of cancer among primitive people, on the one hand, and among civilized people on the other, compels the conclusion that somewhere among the complicated conditions of civilized life are the factors which will explain this increase. Beyond this we cannot go with safety unless to repeat the frequent observation of the association of cancer in individual cases with some form of persistent irritation. We have not, therefore, reached the place where we can discuss the prevention of cancer with any degree of positiveness, except in so far as we may advise the removal of some obviously irritating focus. The problem at present is one of treatment by removal or destruction, and this implies the more primary problem of diagnosis. Furthermore, this diagnosis must be made near the onset of the disease if treatment is to be successful, and this most difficult ground belongs to the general practitioner. The consulting internist or the surgeon usually enters later. The general practitioner is the man on picket duty who must keep eye and ear keen to detect, and mind alert to interpret, the first uncertain signs of approaching danger. To him first comes the patient with vague digestive disturbances, with indefinite intestinal symptoms, or with menstrual irregularities, and upon him rests the grave responsibility of directing his patient along a course which may save or which may cause him to lose his life. In the beginning of its development cancer produces a disturbance of function with nothing distinctive. At this time a diagnosis can be made only by means of the microscope. How often do we see the surgeon even at a much later stage of development pause with uncertainty in his operation until the microscope

shall reveal the true nature of the growth. How then can a diagnosis be made early enough to benefit the patient when an internal organ such as the stomach is involved? It is truly a most difficult problem; indeed, it may be and often is an impossible one. Our problem here is not so much to demonstrate the existence of cancer as to show that something else does not exist. It is a negative process. We can only take the position of assuming the possibility of cancer by excluding other causes of the symptoms. If we wait for a definite positive diagnosis we shall in all probability take away from our patient his chances of recovery. The time to cure a gastric cancer is before it is a gastric cancer clinically. The earliest indications are obscure digestive symptoms, slight nausea, a feeling of unwonted epigastric heaviness after a meal, eructations, loss of appetite. Such symptoms occurring in a person of 35 or 40 years of age should always excite a suspicion of the possibility of malignancy, if they are not transitory. An exhaustive examination is then demanded. This must include first a carefully taken history, which requires patience and skill, and the usual chemical, microscopic and Roentgenological examinations. The interpretation of the results of these examinations must be made by the clinician or by him in conjunction with the various laboratory workers, never by the latter alone. The Roentgen picture may be an important link in the chain of evidence, perhaps the most important, or it may be wholly negative. The gastric analysis may point toward cancer, or it too may fail to furnish any information. Neither must we lay too much stress upon the absence of the classical features such as anemia and emaciation; these do not appear at once.

In order to form a correct judgment in an early case in which the indications are never clear we must bring to bear upon the problem trained clinical sense which enables its possessor to recognize probabilities and to weigh their relative importance fairly accurately, and training.

The question of procedure in a doubtful case is of the utmost importance. If the case be one of malignancy it is probable that a

careful examination and analysis will reveal some suggestive indications, some degree perhaps of loss of strength, a lowered acidity, or a doubtful film. Shall operation be advised? I am afraid that sometimes both internists and surgeons are overfearful of their reputations and on this account postpone operative advice, knowing that many patients are unforgiving if upon operation a noncancerous condition be found; but in view of the grave consequences of waiting for positive evidence, I believe that an exploration should be advised in such cases. When the situation is properly explained to the patient there will be no trouble in the majority of cases. The public should be instructed as to the uncertainty of making a clear diagnosis, and of the possibility of malignancy existing in the absence of positive indications.

It is a rare thing to see an operation on gastric cancer performed early enough to prevent a fatal issue, and it is rare because the physician usually has waited for more definite indications before advising operation. Four years ago in a paper on this subject before this Association the writer said: "The increasing frequency of cancer of the stomach, the high mortality attending surgical treatment when postponed too long, the necessity of early operation if the disease is to be checked by removing it while still localized, make it essential that every case presenting gastric symptoms be thoroughly and conscientiously worked out, and further that every gastric case, the cause of whose symptoms cannot be determined satisfactorily be advised to submit to an exploratory incision, and that chronic gastric ulcers be treated surgically, not medically." This opinion he still holds.

When cancer develops upon the basis of some chronic affection of long standing very great care and close observation are required to avoid overlooking the earliest signs of malignancy. One of my patients was a dyspeptic for many years. When his symptoms became more constant nothing was thought of it. It was quite natural for him to be worse at times. When he came under my observation, almost constant pain, an enlarged liver and moderate but definite ascites told the story. Explora-

tion proved the diagnosis, but it was too late to afford relief. Another case was a periodic drinker who for a good many years had suffered with chronic alcoholic gastritis. He belonged to that familiar group of patients whose contentment with life seems to depend upon taking medicine and whose conversation, wherever it may begin, invariably ends with an account of symptoms. He became worse, but his story was not credited. In the course of time his loss of flesh and increasing weakness became sufficiently obvious, and the stomach tube brought up a bloody gastric juice which presented also other evidences of malignancy. Abdominal section revealed a large inoperable scirrhus cancer on the posterior wall of the stomach out of reach of the palpating hand.

In both of these cases a little more patience and a little more care might have led to an earlier diagnosis. Both had reached the time of life when cancer must always be considered a possibility, but this all-important fact had been overlooked.

The history may be misleading sometimes. A young man in the early thirties, a physician, realizes that something is wrong. His symptoms are vague, a loss of appetite and disinclination to exert himself. Notwithstanding his impaired appetite he thinks he is putting on weight because his clothes are tighter around the waist. His ill feelings are attributed to excessive indulgence in alcohol. Furthermore in his youth a tubercular focus in the right lung had been diagnosed. This had healed, but possibly there was some renewal of activity. When he put himself in the hands of a physician other than himself ascites was demonstrable, and in view of his history alcoholic cirrhosis of the liver, or tubercular peritonitis were the alternatives considered. An exploration was made in the hope of giving some relief or possibly of effecting a cure if it were tubercular. A very extensive carcinomatous infiltration of the mesentery was found; the initial focus could not be determined.

A case of intestinal cancer illustrating the difficulty of early diagnosis came under observation more recently. A middle-aged woman presented symptoms of colitis, abdominal

pain of a griping character and frequent mucus discharges tinged with blood. Under treatment the attack passed off, to be followed in a short time by another which also yielded. She had been told by a surgeon that she had gall bladder disease, but she was unwilling for operation. After several attacks of what seemed to be colitis an X-Ray was taken and this opinion was supported by the radiographer's diagnosis which also was chronic colitis. For a time she improved, or seemed to improve, under rest, dietary regulation and the administration of autogenous vaccines. When the symptoms again recurred and became more aggravated a diagnosis of malignant disease was reached, but too late for help.

A disturbing factor in the diagnosis of cancer which is not infrequently encountered is a definitely positive Wassermann, with or without a history of primary infection. If the stomach be the organ involved, the clinical features, the laboratory findings, and the X-Ray film together may give a very uncertain and puzzling picture at times. What course shall we pursue in such a case? The choice lies between performing a needless operation on a syphilitic, or of losing precious time and giving a possible malignant growth opportunity to develop beyond an operable stage. If the disease is in an early period of development the patient should have the benefit of an exploration, for delay may cost the chances of success in case it be malignant, and operation in no way jeopardizes recovery in case it be syphilitic. In an advanced case it is perfectly proper to use antisyphilitic remedies without preliminary exploration, for if malignant it is probably already inoperable. In the Roper Hospital clinic we have had several very striking instances of improvement or recovery in patients with palpable tumors in which there

was reasonable uncertainty as to the character of the growth.

The emphasis laid upon cancer of the digestive organs is warranted by its frequency and by the obscurity of its early symptoms, but all that is said applies equally to other forms of malignant diseases. Cancer of the female generative organs, of the urinary apparatus, of the respiratory organs, present obscure and misleading symptoms in the initial and early stages, and require equally careful study and analysis. The problem of the general practitioner is to determine which cases are suspicious enough to refer to a consultant, if he himself is not in a position to do or to have done the detail work necessary for complete study and this requires a larger outlay and a more extensive experience than he can usually command both in technique and interpretation. In a general way it may be said that the persistence or the recurrence of symptoms demands in every case a satisfactory explanation and that the study required to furnish this explanation must be directed toward exclusion as well as inclusion, and that whenever a reasonable conclusion cannot be reached by use of the means at hand reference to others with larger facilities is required. The possibility of cancer in persons of middle life must be held in mind always, nor must it be overlooked that younger persons may be occasional victims. The general practitioner has the opportunity of educating the masses of people as to the possibilities of cancer, as to its curability and the proper means of accomplishing this end, and having the opportunity it becomes his duty. It is all important to encourage people to accept operation as the first resort, not as the last, in the treatment of cancer, and to recognize the impossibility in many cases of making a certain diagnosis without an exploration.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

BREAST-FED BABIES ARE BEST-FED BABIES

An experience of an Industrial Nurse, who is also a Community Nurse to some considerable extent in the community where her industry is located.

The mother had the true mother spirit and was ready to nurse her baby. For the first four weeks all went well, the baby nursing alternate breasts at the feedings, and gaining according to schedule.

At that point of baby-life (four weeks) a breast abscess developed with no known cause. The Nurse and Doctor were working in close harmony. The baby continued nursing both breasts, but the abscessed breast milk was expressed to be sure that no pus was coming through the nipple. When that was the case the time had come for opening the abscess, so the baby was fed from the other breast and watched very carefully and closely; the baby held its own weight during the time of having the one breast, and the stools and everything else indicated no real need for any supplementary feeding. Very soon it seemed right to return to giving milk from both breasts again, and care was used in the cleaning of nipple during the time of dressings being needed for the breast. At this point came in the added need for help and encouragement on the part of the nurse; the abscessed breast was not as easy and pleasant for the baby, and the nipple somewhat retracted; the mother not very strong, and nervous and worried, and so not quite equal for the struggle. The nurse explained the situation, and put the baby to the breast, from which he had not had the food, for long enough to establish a certain habit in his mind. He would not try;

it was different, it was not easy feeding as the other breast had been. After a few minutes of effort and crying on baby's part he was laid down in his bed as if his feeding were over. The first minute was such a surprise to the youngster that silence reigned, but only for the moment, for he had not had his food. Then the battle of wits began. The nurse explained to the mother that the nipple bothered the baby, and the unusual conditions made it hard for him to obtain his food supply. If they gave in it would be bad for both baby and mother. It took quite a few minutes of patience and work for the retracted nipple and calming for the worried mother during the crying of baby, but at last the youngster took hold, and that feeding was settled with a certain sense of satisfaction though everybody was tired. The same process was repeated at the next time for that breast feeding; the baby was put to the breast, and when not willing to take hold, quietly laid down as if ready for usual rest after feeding. The nurse calmed the mother, and helped her get the baby to nurse that breast. With each time the struggle was shorter; the mother became more assured of final success, the baby realized the kindly gentle firmness, and by three days all was well. Gain in weight began again and has steadily continued and perfect functioning for health of mother and baby has also continued. The milk from that breast has been ample, and alternate feedings from each breast has been the program. The mother fully appreciated the help given and has been willing to follow directions for the good of the baby to every last detail. The result is a breast-fed baby in fine condition, and a mother not only doing what is best for the baby in food, but also realizing the value of quiet patience in the mental training of even the little ones.

OBSTETRICS AND GYNECOLOGY

R. E. SEIBELS, M. D., Columbia, S. C.

Case Report by J. McI. Willcox, M. D., Darlington, S. C.

AN UNUSUAL OBSTETRICAL CONDITION

On June the 17th, I was called by a midwife to attend a young colored girl who was then in labor. It was the opinion of the midwife that the case was an exceedingly difficult one and as it was several miles in the country I asked Dr. Milton Block, a recent graduate of the Medical College in Charleston, now of Baltimore to accompany me.

The delivery had already been completed when we arrived, however. The midwife was in a great state of excitement and insisted that we make an immediate examination. The condition found was as follows: Between the vaginal outlet and the anus there was a large stellate tear. Neither was torn into, however. The placenta had already delivered but the membranes were still hanging from the hole in the perineum rather than from the vaginal outlet. I made a vaginal examination and found the vaginal outlet to be of about normal size and showed no evidences that the child had delivered through this orifice. The tissues were fairly elastic, however, and with some little difficulty I was able to introduce my gloved hand into it. About two and one half inches from the vaginal outlet and the posterior floor of the vagina there was a linear tear which of course extended all the way across the posterior wall and up on the sides.

The midwife gave us the following history; that she was called to see the girl three days ago and that she was beginning labor at this time. Labor pains had been moderate but fairly regular for two days. About twenty-

four hours before we were called pains became severe and had remained so until delivery was finally accomplished. About the time she called pains were very severe and she noticed a bulging of the perineum. Finally the child's head burst through the perineum and was born during one severe pain.

The child was a male, apparently full term, and weighing about seven and a half pounds. The mother in spite of her prolonged labor and severe laceration was in excellent condition, except that she was suffering from a diarrhea. The parts were badly soiled.

I had Dr. Block give her a light anesthetic and cleansed the parts with weak Lysol solution after which I thoroughly iodined them. The perineal muscles which were badly lacerated I sewed with chromic gut. The fascia and skin I closed in the usual manner except that I inserted a small gauze drain on account of the extreme soiling of the parts. This I removed at the end of twenty-four hours. Her recovery was uneventful and after the second day she ran no fever. At the end of ten days she was up and the perineum had quite healed.

I went carefully into the mother's history. She is eighteen years of age, is a primipara, and has always enjoyed excellent health. There was no history or evidence of any specific infection. There was apparently no scar tissue in the perineum.

Of course I was not present at the birth of the child but from what I saw I have every reason to believe that the child left the birth canal and made for itself a new opening through the tissues of the perineum. It is rather difficult to say just what mechanical condition should have caused this for the tissues of the lower vagina, while not stretched, appeared to be quite capable of stretching.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

REFRACTION CHANGES IN DIABETES MELLITUS

W. S. Duke-Elder in the British Journal of Ophthalmology observes that it is well known that in some cases of diabetes a change of refraction towards myopia occurs, but that it is less well less known that a sudden change to hypermetropia may occur. Duke-Elder from his own cases and from cases collected from other sources, concludes that the change towards myopia can be correlated with an increase in the blood sugar and that the change towards hypermetropia is associated with a decrease in the blood sugar, particularly when the decrease is effected too suddenly. He thinks it probable, therefore, that with the in-

roduction of insulin the occurrence of sudden refractive changes towards hypermetropia will become more marked. He discusses at length various theoretical explanations of the refractive change in the eye itself; he believes the lens is primarily concerned, and suggests that the phenomenon is due to osmotic processes caused by the occurrence of variations of the molecular concentration of the blood and tissue fluids connected with changes in the sugar content. He adds that there is a tendency for the refractive condition to return to the condition prior to the onset of the diabetes in the event of the disease being successfully controlled.

I saw a case corresponding to above in the mother of a Medical Student, who was being successfully treated for her diabetes.

MINUTES

MINUTES SCIENTIFIC SESSION SOUTH CAROLINA MEDICAL ASSOCIATION

Wednesday, April 22, 1925, 9:30 A. M.

Opening Exercises

The Association met in the ball room of the Cleveland Hotel, Spartanburg, and was called to order by the President, Dr. D. M. Crosson, Leesville, S. C.

Invocation

Rev. Wm. L. Ball, D. D., Pastor First Baptist
Church, Spartanburg

O God, our Heavenly Father, we thank Thee for this day, and for every provision made for the spiritual and temporal needs of man; we thank Thee for every gift made not only for our spiritual welfare but for our bodies. We thank Thee for Thy Son, the Great Physician, who went about doing good, healing the sick, giving sight to the blind, making the deaf to hear and the lame to walk, and raising the dead. We thank Thee for His influence in the world during these centuries. We thank Thee for medical science and for all it has done for the uplift of humanity and for the healing of our bodies. We thank Thee that our physicians, having the spirit of the Master, are going about doing good, healing us, giving us health and strength so that we can give more efficient service to our fellow men. Bless those who have come to this meeting; bless those who shall take any part in the session; bless them as they think together and work together on the great problems which confront them, and grant that they may be led by Him Who is the Great Physician of us all. We pray Thee as they go day by day about their work that Thou wilt give them skill and wisdom. All this we ask in the name of our Lord Jesus Christ. Amen.

ADDRESS OF WELCOME ON BEHALF OF CITY OF SPARTANBURG

H. R. Black, M. D., Spartanburg

I am permitted by the courtesy of the Mayor of Spartanburg to welcome you to our city, and I assure you that it gives me a great deal of pleasure to extend this welcome. We do not boast of our proud possessions, yet we are situated in the very heart of this great piedmont

section of country, at the foot hills of the Blue Ridge mountains, from which flows our water supply, as pure as can be; from whence comes the very air we breathe, laden and impregnated with an ozone as refreshing and as invigorating as ever God gave to man. We are the gateway of the South Atlantic States from the west. We are situated on the main line of this great Southern Railway, extending from Washington to New Orleans. We are a railroad center, with railroads leading in every direction, to the east and to the west; to the north and to the south. Our city abounds in churches, in public schools, in colleges. Just over on yonder hill stands old Wofford College, which has produced as many great men in the State of South Carolina as any institution in our borders. (Applause) Just over there is Converse College, with its beautiful girls, with its great music festival. Our county is rich; our soil is fertile; our people are kind, they are industrious, they are vigorous, they are courageous, they are hospitable. I welcome you with all my heart in behalf of the city of Spartanburg. Our city is yours during your stay. The mission that brings you to Spartanburg entitles you to the very best that we have. It has been my fortune, for good or for worse, gentlemen and members of this Association, to have been a member of the medical profession for more than forty years, and a member of your State Association for more than thirty-five years. I have therefore, Mr. President, had ample opportunity to learn to know something of the great work of this institution which you represent, and I therefore congratulate you upon your noble task. Many of the causes of human ills have yielded to the conquest of the medical profession. Typhoid fever, typhus fever, malarial fever, yellow fever, cholera, plague, and other scourges have been swept away, and even tuberculosis, the great white plague, is beginning to retreat. All of this, gentlemen, has been due to the untiring and everlasting perseverance of the medical profession, which you represent. We welcome you to our city. We are glad of this opportunity to see you and to meet you and to shake your hand. To get the very best out of our labors that is in us, we must supplement our individual work by the labors of individuals gathered into an association. I am glad to see you gathered into this association in our own city. I know that it means good to humanity, and I there-

fore welcome you and congratulate you. We hope that you will stay with us even after this association adjourns. I know that you are busy, that you have not time to see our city, but we are growing; we are prosperous; we consider ourselves equal to any in the state. We welcome you to anything we have, except our cemeteries.

Now, gentlemen, in conclusion, if any of you are so unfortunate as to get into trouble, for the time being I am authorized by the courtesy of the Mayor of this city to get you out of any trouble that you may happen to get into. Again I welcome you in the name of Spartanburg, and hope that you will have a good, prosperous, and successful meeting. (Applause.)

ADDRESS OF WELCOME ON BEHALF OF THE SPARTANBURG COUNTY MEDICAL SOCIETY

W. A. Wallace, M. D., Spartanburg, S. C.

Mr. President, Members of the South Carolina Medical Association, and Guests of the Association:

It is indeed a great pleasure to welcome you on behalf of the Spartanburg County Medical Society. I should love to go around and give each of you a good, hearty old-fashioned handshake, but in the two hours allotted to me for this address, that would be impracticable.

Spartanburg is situated in the Piedmont section of South Carolina, with an altitude of approximately nine hundred feet, and with a climate that is unsurpassed. We are within twenty-five miles of the mountains. Mountain water and air are absolutely pure, as you know. There is one feature that living so close to the mountains makes possible, and that is the "mountain dew"—sometimes, we get a little heavy flow into Spartanburg. (Laughter). Should that occur during the meeting and any of you get soaked, we have splendid hospital facilities for taking care of you. Situated on the Northern edge of the City is the Spartanburg General Hospital, a County-owned institution, erected by the County, at a cost of approximately Half a Million Dollars. It has one hundred beds, and has nursing equipment, X-ray Plant and Laboratory, and a recently organized Staff. With this equipment, we hope to have in Spartanburg in the near future a Class A. Hospital. Near this Hospital is the nurses' home, a building similar in structure to the main building. This is a unit, a beginning; and before a great while we hope to have different units in this organization—for instance, a Tuberculosis Camp and a contagious ward in separate buildings,

but on the same campus with our General Hospital.

On East Main Street, we have a private hospital, an institution of forty beds, remarkably well equipped, with X-ray Plant and Laboratory.

We hope that you will have in Spartanburg the biggest and best meeting in the history of this Society. In this connection, we need your cooperation, your support. Speaking of support, you will pardon me for digressing just a moment. I am reminded of an incident in the life of our good friend from Williamston, who, when observing an airplane soaring at an altitude of approximately twenty-five hundred feet, remarked to his friend of the Emerald Isle: "I should hate to be up there in that thing." The Irishman reflected for a moment and replied: "It's me that would hate to be up there without it!" (Laughter). So we hope for your support, your cooperation, in making this meeting the best in the history of the Society. Each member is a unit in his County Society, each County Society a unit in the State organization; and each State organization is a unit in the greatest of all Medical Societies—the American Medical Association. So gentlemen, can you wonder that I take no little pride in welcoming, on behalf of the Spartanburg County Medical Society, one of the strongest units in the strongest, the greatest Medical Society in the Universe. (Applause).

RESPONSE TO ADDRESSES

Dr. Frank Lander, Williamston

Mr. President:

For more than three quarters of a century this honorable and venerable society has been meeting once a year at various places over the State in the effort to perfect means for its own destruction and to make plans for erasing its own excuse for being. Strange men these doctors are: Never so happy as when they have been able to prevent disease while their only means of livelihood consists in treating sickness.

Imagine if you can the South Carolina Cotton Manufacturer's Association solemnly meeting to advise that no man should wear a shirt, or that women's dresses should be cut shorter from below, or lower from above; or that South Carolina bankers should decry the borrowing of money or that the State Teachers' Association should inveigh against education!

There are some twelve to fifteen hundred men practicing medicine in South Carolina and they represent every style and type of intellect

and character. We have heard ourselves lauded to the skies by perfervid orators, we have been pictured as modern Sir Galahads—our cool hands upon fevered brows have been featured in song and story. The close relationship between doctor and patient, the altruistic allopath, the unselfish surgeon, the genial general practitioner, the simple hearted, single minded specialist have all been used in literature, but when once we get past this halo of romance we see physicians not through a class darkly but face to face and soon discover that doctors are not demigods, surgeons are not super-men, but we are human and sometimes humane.

I am glad to step down from the poetic pedestal where custom has placed us and be a man among men, a citizen among citizens, a conservator of health and morals among conservators of health and morals.

Gathered here today are men who minister to every walk in life. Here is he who waits on the priest and prodigal, the prince and the pauper. And there is no difference in the quality or sincerity of his service.

The greatest opportunity for usefulness in any community is given to the doctor and next would come the teacher and the minister. When the heart is flagging and the breath comes fast and short and the restless body is tossed upon hot sheets, the anxious eye looks longingly at the door, the eager ear strains to catch the familiar foot fall upon the steps. For whom are you waiting, the preacher, the teacher, the banker, the merchant, the lawyer, the artist, the poet, the musician, the kind neighbor. All these are fine, but still they answer not. His soul seeks solace and safety in the confidence he has reposed in his doctor. He enters and all is well.

The real measure of a man's life is the measure of the service he has done. Last Sunday I attended the funeral of Dr. J. O. Wilhite of Anderson. For blocks and squares the streets were jammed with automobiles and hundreds of Anderson County friends passed by his bier to pay a last respect. No word was spoken of the honors he had achieved, nor was heard a query as to the value of the estate he had left, but every tongue was eloquent with the recital of some service he had done, some good great deed which years ago had brought health and safety back where illness was. I do not know what they will cut upon his tomb, but here is a sentiment quite good enough for me: "Here lies the body of a man who served with gladness at the bed side of his people."

O, citizens of Spartanburg, no matter who have been your guests in times gone by, nor who the future days may bring into your

charming homes, you never can receive more worthy folk nor give your city's key to gentler men.

And surely we are well met! The evidences of your material wealth which meet us on every hand impress us not at all. Your vast textile interests where the hum of a million spindles rings prosperity the whole year round, your railroad shops, your skyscrapers, your elegant hotels, your miles and miles of pavement, your stores, banks and merchandise make slight appeal—in many towns the marks of trade are lively as your own. All this is of the earth, earthy and abideth not.

Why is this city called Spartanburg? Because your Revolutionary fathers were Spartans in their soldiering. Which way does Morgan ever gaze? To Cowpens and Kings Mountain. In all the wars from Mexico to France your sons have always been worthy, your daughters have been brave. "Canst thou bind the sweet influence of the Pleades?" Yes, and can you estimate the strong example of your sires.

Time forbids that I more than mention a few of the masters of the healing heart whose lives have adorned and still adorn this county's history.

The older Dr. Cleveland and his son, Dr. Jesse Cleveland, Russell, example of the old type doctor at his very best, Kennedy, who had time in a busy practice to found your splendid Free Library. Moore, and Nott and Means, a trio of knightly men. Heinitsh, whose record still scintillates with the amazing brilliance of his work. And Dean, the only president that Spartanburg has ever given to the Association. Then the older Black, who opened the first or second belly in Spartanburg County. Then Blake, and De Foix Wilson and Julian Allen and then the younger school of modernists. But let me call two wondrous men: Chapman of Inman and Lancaster of your city, who though old in years have learned to renew their youth like the eagles and work both night and day.

Since 1854 the pines of Wofford Campus have sung in the wind the tetrameters of Virgil and Homer and the classic college corridors have echoed the foot-steps of mighty men of God! Wightman and Shipp and Carlisle, DuPre and Duncan and Smith—giants in Israel and master moulders for all eternity. Probably the two greatest educators which South Carolina has ever produced still live almost within the sound of my voice—men who hold the light of knowledge up where sightless eyes may see and bring the sweet music of science and art and poetry and literature to ears which cannot hear. Of course I refer to Dr. Newton F. Walker and his son,

Prof. W. Lawrence Walker of Cedar Spring. God bless them in their work!

And Converse College your blessings unmixed and joy unalloyed, adorning of woman's life, inspirer of woman's ambition, mother of woman's character and director of woman's destiny. *Esto Perpetua!* May she forever live!

Your well manned churches dispense a practical religion, your bar and press are composed of lawyers and editors whose erudition is well known and whose character is above reproach. I have mentioned but a few of the factors which enter into the making of a modern Spartan. "Who can bind the sweet influence of the Pleades?" Into your wonderful hospitality which is born of bravery and education and character and culture and courage do we come and Oh! the joy of coming!

REPORT OF COMMITTEE ON HOSPITAL EFFICIENCY AND STANDARDIZATION FOR 1924 AND 1925

To The House of Delegates:

Your committee begs to report that there has been an increase in the number of hospitals which are now rated as class "A" and it believes that there has been a satisfactory improvement in efficiency in all of the hospitals. Class "A" rating means such hospitals as have met the minimum requirements of the American College of Surgeons. These requirements are briefly, that there shall be a functioning staff organization which shall hold its regular meetings, at which time the scientific affairs of the hospital are thoroughly discussed. It also means that a hospital shall have all of the facilities for diagnosis and that a full and complete record of all patients shall be kept. This includes full and complete history and not a brief summary, daily progress notes, laboratory reports, operative or other records, etc. Only such hospitals as have been inspected and have met these requirements are now classed as "A." Doubtless, there are others meeting these requirements that have not been inspected, but your committee is dependent entirely on such work as has been accomplished by the representatives of the American College of Surgeons for its information along this line. Your committee believes, however, that it would be an excellent idea to have all of our hospitals inspected, thereby increasing the interest, cooperation, standardization, and efficiency of all of the hospitals in South Carolina in the great work at hand. Your committee has no concrete plan whereby this may be done or financed, but it is quite probable that some feasible plan could be worked out and it is its opinion that the work

can be done without embarrassment and that it will result in great good.

The recent Legislature passed an Act requiring all applicants for admission into nurses' training schools to have at least two years of high school work; this seems wise and has the hearty commendation of your committee. From the larger percentage of nurses who are passing the State Board of Medical Examiners now, it is evidence that the schools are raising their standards and we believe that the increased entrance requirements will, in no way, interfere with the efficiency of the hospital, so far as having their training schools depleted.

Your committee has no report to make as to any activities of the Duke Foundation other than to state that your Chairman has had a personal interview with Dr. W. S. Rankin, of Raleigh, who has resigned the secretaryship of the North Carolina State Board of Health to take over the activities of the Duke Foundation in its relationship to the hospitals of North and South Carolina. Those of us who know Dr. Rankin personally congratulate the trustees on the selection of Dr. Rankin for the work at hand, and it is safe to say that nothing will be done until a thorough and careful study of the situation has been made. Dr. Rankin will have no plans to announce until the coming year.

Respectfully submitted,

F. H. McLEOD, Chairman.

REPORT OF THE STATE BOARD OF MEDICAL EXAMINERS OF S. C.

Applicants for Examination for the Year 1924

Doctors June Examination 30; November Examination 6—Total 36.

Nurses June Examination 43; November Examination 56—Total 99.

Doctors

White males -----	34
Colored males -----	2

36

Nurses

White -----	96
Colored -----	3

99

The Board met at Columbia, S. C., in July and December 1924 to tabulate the grades made by the applicants at the June and November examinations, with the following results:

Doctors

White passed -----	34
Colored passed -----	0
White failed -----	0
Colored failed -----	2

36

Nurses

White passed -----	70
Colored passed -----	1
White failed -----	26
Colored failed -----	2

99

A. EARLE BOOZER, M. D.,
Secretary.

REPORT OF THE COMMITTEE ON SCIENTIFIC WORK. MEDICAL ASSOCIATION OF THE STATE OF SOUTH CAROLINA

Your Committee first wishes to thank those who have so materially contributed to the success of their work. In token of appreciation of this cooperation the Committee shall make its report brief and to the point.

For a more efficient working of the committee, especially in order to establish a more unified plan of action, and develop a tradition, the following rotating service is suggested:

The Committee members (three as at present) to serve for three years (now they are elected for one year). President and Secretary are exofficio members.

Term of one member to expire each year. Hence one new appointee each year.

The member longest on committee to be chairman for the last year (i. e. his third) he is on the committee.

All of the committee members are agreed up to this point. Some felt that the chairman should be retained this year, others believe that the chairman should be changed and the plan introduced.

In order to start this plan this year one new member should be appointed. One of the remaining two should be selected to act as chairman during the following year and then retire. The present chairman to retire this year.

Respectfully yours,

Dr. LeGrand Guerry,

Dr. J. W. Jervay,

Dr. Frederick H. Dieterich,

Chairman Com. Scientific Work.

REPORT OF COMMITTEE ON PUBLIC POLICY AND LEGISLATION

Your Committee of Public Policy and Legislation has very little to report about the last

meeting of our State Legislature. As you know, by an overwhelming majority, the House of Representatives defeated the so-called Chiropractor Bill. This bill has been coming up in our Legislature for years; first in the Senate, then in the House. The bill proposes to establish a separate examining board composed of Chiropractors to examine Chiropractors for a license to practice in our State. The Chiropractors steadily grew in strength from year to year until this year when they were overwhelmingly defeated.

Our Committee realized there was appointed last year a special committee on Illegal Practitioners. We did not wish nor intend to assume the responsibility or usurp the function of this special committee, but we wish to report a limited activity on our part in this direction. On April tenth, immediately after our Legislature adjourned, we wrote Governor McLeod the following letter:

Honorable Thos. G. McLeod, Governor,
State House,
Columbia, S. C.

Dear Governor McLeod:

As you know our last Legislature defeated overwhelmingly the so-called "Chiropractic Examining Board Bill". As chairman of the legislative committee of the South Carolina Medical Association, I am writing to you as the chief law enforcing officer of our state to ask for an appointment for a conference with you in reference to this matter.

Our State Medical Association meets Wednesday, April the twenty-first, and I am required at this time to report the result of my conference. Will you, therefore, be kind enough to set a time when I can call on you for a few minutes?

With best personal wishes, I beg to remain,

Yours sincerely,

Marion H. Wyman, M. D., Chairman,
Legislative Committee of the
South Carolina Medical Association.

On April the fifteenth, we received his answer as follows:

Dr. Marion H. Wyman,
1318 Lady Street,
Columbia, S. C.

Dear Doctor Wyman:

I have received your letter, and shall be glad to have a conference with you about ten o'clock on Monday morning.

Yours very truly,

Thos. G. McLeod, Governor.

The conference was held and Governor McLeod stated most emphatically that he favored enforcing all our laws, including the laws against illegal practitioners. He certainly does

not believe in the claims of the Chiropractors. His office has only a limited amount of money with which to apprehend and prosecute crime. He is anxious to cooperate and suggests the following plan; That a committee from our Association write him, the Governor, a letter, drawing to his attention the fact that Chiropractors and other illegal practitioners are plying their trades in defiance of our State laws. He also suggested that we state some reasons why we believed the Chiropractors are a menace to the people of our State. On receiving this letter, he, Governor McLeod, will write to every Solicitor in South Carolina and request them to have their Grand juries indict all illegal practitioners.

Our state law requires the grand jury to bring indictments where individuals, for some reason, object to appearing as persecuting. The Governor says this procedure is frequently resorted to where a community wants to stop people living in adultery. Thus, you see, as the Governor suggests, our organized profession will not have to appear as persecuting Chiropractors for selfish motives. He says, however, in every community where a Chiropractor is to be indicted, it would be well for the physicians to see some of the prominent grand jurors and explain our position and furnish evidence if needed. The Governor thinks in Columbia, for example, that the Chiropractor advertisements would be almost evidence enough to convict.

He declares when one is convicted, he will enforce the sentence to the fullest extent and under all conditions can we count on him as being in favor of upholding the law and cooperative with all who have the same desire.

Marion H. Wyman, M. D., Chairman,
Committee on Public Policy
and Legislation.

The House of Delegates,
South Carolina Medical Association,
Gentlemen:

Your committee, to whom the resolution in the matter of illegal practitioners was referred at the last meeting, begs to make the following report:

We were directed to consult with the Governor and Attorney General and present to them the fact that prosecutions against illegal practitioners seldom result in convictions because of the dislike of persons living in a community or nearby Doctors to act in a prosecuting capacity against alleged offenders. This matter was discussed with Governor McLeod, who readily suggested that in any instance in which the solicitor would request a special officer to work up a case that he would be glad to assign an officer for this purpose.

This seems to be a happy solution of the problem. If a special officer shall be deputized for the specific purpose of obtaining information, names and witnesses, and other facts necessary to conviction and shall report them to the Solicitor it seems more probable that we will be able to secure convictions than we have in the past. The proper line of procedure hereafter would be to have a councillor or others interested to interview the Solicitor of the District in which there is an alleged illegal practitioner and have the Solicitor apply to the Governor who, in turn, would send an officer to the scene.

Respectfully submitted,

F. H. McLeod, Chairman.
W. G. Houseal,
E. L. Kibler,
Special Committee.

SOCIETY REPORTS

MEETING LEXINGTON MEDICAL ASSOCIATION, JULY 8, 1925

The Lexington County Medical Association met Wednesday night of last week at 6 p. m. at the Leesville Infirmary. The president, Dr. J. M. Crosson, presiding. Dr. George Horne, of Augusta, read a paper on "Crogenital Malformation—A Displacement of Kidneys." Dr. W. P. Timmerman, of Batesburg, read a paper on "Care of Mothers During Gestation."

The papers, which were of the highest order, were ably discussed.

A request came for the publication of these papers in the State Medical Journal.

The honor guests were Dr. George Horne, of Augusta; Dr. Sam Harmon, of Columbia, and Dr. Edward Barron, of Columbia.

The association was well attended by its members, by the members of the woman's auxiliary and by invited guests.

At the close of the business session an elaborate dinner was served by the hospital nurses, under the direction of Miss Hyatt. Punch was served throughout the evening.

Dr. W. P. Timmerman acted as toastmaster. Short after-dinner addresses were made by following: Dr. Sam Harmon, Columbia; Dr. E. C.

Ridgell, Batesburg; W. H. Fallaw, Batesburg; Dr. Paul Smith, Gilbert; Dr. D. M. Crosson, Leesville; Dr. George Horne, Augusta; Dr. Ed Barron, Augusta; Mrs. D. M. Crosson, Leesville; Mrs. A. L. Ballenger and Mrs. W. P. Timmerman, Batesburg.

The favors were tiny flags. Patriotic decorations were used. Beautiful music by the Timmerman orchestra was rendered during the banquet.

—From Twin City News.

YORK COUNTY MEDICAL SOCIETY MEETING

The York County Medical Society held its regular bimonthly meeting in York on May 12th. The meeting was well attended and the following papers were presented:

Ureteral Obstructions Due to Causes Other Than Stones.—Dr. W. B. Ward.

Pernicious Anemia with Special Reference to a Recent Case—Dr. W. K. McGill.

Some Postinfluenzal Sequelae.—Dr. D. E. Walker.

The papers were good and were freely discussed.

W. E. Simpson, M. D., Secretary.

NEWS ITEMS

THE SOUTHERN MEDICAL ASSOCIATION MEETING

The various committees appointed in connection with the meeting of the Southern Medical Association in Dallas November 9th, 1925, report very satisfactory progress.

It is especially gratifying to know the hotel committee has already succeeded in having reserved for guests more than 1600 rooms in the leading and best hotels of Dallas. This insures you that no matter how great the attendance each one will be comfortably and suitably provided with proper hotel accommodations. This settles a question which has not concerned the doctors of Dallas who are acquainted with local facilities, but which has been raised by prospective visitors.

For the first time in its history, the Association will have all its activities housed in one building. The new educational building of the First Baptist Church on the corner of St. Paul and San Jacinto streets will be completed long before November and will have a sufficient number of assembly halls for the various section meetings. The large auditorium with its splendid acoustics gives ample room for all general sessions and the basement floor, easily accessible, will give more than enough room for all exhibits, commercial and scientific.

In connection with the Association's meeting in November, clinics in all branches will be conducted in all Dallas' splendid hospitals, which contribute largely to its rank as a medical center of the Southwest. The bed capacity in the larger hospitals alone is in excess of 1,2000. Over \$8,000,000.00 has been invested in the hospital facilities; below is given some data on the different institutions located in the city:

BAYLOR HOSPITAL AND MEDICAL SCHOOL

The Baptist Memorial Sanitarium was opened in 1909, being enlarged in 1922 and the name changed to Baylor Hospital. It is

the largest sanitarium in the city, having a capacity of 432 beds. One hundred graduate nurses and one hundred and sixty-five training nurses are employed. The capital invested is in excess of \$3,000,000, the hospital being operated by the Baptist Denominations of Texas.

While the main plant of the Baylor University is located at Waco the schools of Dentistry, Nursing, Medicine and Pharmacy are in Dallas. The enrollment is in the neighborhood of 1,000. The Medical Department will be in session during the S. M. U. meeting, and all its clinics open to visiting physicians.

ST. PAUL'S SANITARIUM

This hospital was established in 1896. The original capacity was 210 beds, but an addition built in 1916 increased the capacity to 300 beds. Two hundred and fifty nurses are employed in the sanitariums. A nurses training school is operated by the Daughters of Charity of St. Vincent de Paul who are also in charge of the management of the main sanitarium. Investments in buildings and grounds are placed at \$1,750,000.00.

DALLAS SANITARIUM

The first 125 bed unit of this hospital is now under construction and will cost \$500,000. When completed the hospital will contain 500 beds and represent an investment of more than \$1,250,000. It was established and will be operated by the North Texas Methodist Conference

PARKLAND HOSPITAL

This 250 bed hospital is operated by the City-County Board. It was established in 1896. Ten graduate nurses and seventy-two nurses in training are employed. It is estimated that the capital invested is in the neighborhood of \$1,000,000. Dr. Lane V. Cooke is the superintendent. A nurses training school is operated in conjunction with the hospital.

At the present time plans are being made to enlarge the school to take care of one hundred students.

FREEMAN MEMORIAL CLINIC

This free clinic was first established in the basement of the First Presbyterian Church, in 1921. In 1924 the clinic was endowed by T. R. Freeman and a beautiful building was erected as memorial to his wife and son. The clinic is absolutely free and handles an ever growing number of patients. The building, together with the equipment, is valued at \$100,000.

HELLA TEMPLE CHILDRENS' HOSPITAL

Established in 1923 by Hella Temple for the treatment of crippled children. It contains 50 beds and employs five registered nurses, fourteen attendant nurses and 12 other employees. It is supported jointly by Hella Temple and the Scottish Rite bodies.

The Timberlawn Sanitarium is a 40 bed hospital employing eighteen nurses and treating nervous and mental diseases. It is located on the Orphans Home road and represents an investment of \$75,000.

MEDICAL ARTS BUILDING

The story of Dallas as a medical center would not be complete without some mention of this 19 story skyscraper, completed in 1924 at a cost of \$1,500,000. It was designed for and is occupied by the medical and dental professions. It is of Gothic Cross design, assuring both light and ventilation to every office. At the time the building was erected it was the tallest monolithic concrete building in the world. About 60,000 patients visit this building every month.

The Medical Profession of Dallas and of Texas warmly invites Southern doctors and their wives to visit Dallas on November 9th, 1925.

Curtice Rosser, M. D.,
For the Publicity Committee.

The Southern Pediatric Seminar at Saluda, N. C. was held early in August and had a large attendance from many Southern States. Among the post-graduates were Dr. W. W. Watkins of Clemson College and Dr. Abel of Whitmire. Dr. Abel combined a post-graduate and honeymoon trip.

Drs. J. R. Young and C. R. Breedin of Anderson have just returned from a tour of European clinics. Dr. Young is Councillor of the 4th District.

Dr. H. W. Corbett of Anderson has returned from New York where he took a post-graduate course in Gastroenterology.

The Anderson County Hospital has completed a splendidly equipped deep therapy department in charge of Dr. F. R. Wrenn.

Drs. G. M. S. Roof and Frank Owens have recently been elected to membership in the Columbia Medical Society.

WANTED

1000 members for 1926. Only 43 members needed to reach the goal of one thousand enrolled in the South Carolina Medical Association. Success is in sight at last! Slogan for the Sumter meeting "1000 in 1926."

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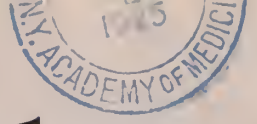
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The Journal

of the

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VOL. XXI.

GREENVILLE, S. C., SEPTEMBER, 1925

NO. 9

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NERVOUS AND MENTAL DISEASES

J. M. BEELER, M. D., State Hospital Columbia, S. C.

EDITORIAL

PRESIDENT CATHCART OPENS A VIGOROUS ADMINISTRATION OF STATE ASSOCIATION AFFAIRS

Dr. Robert S. Cathcart of Charleston, President of the State Medical Association, in the first few months, since he has been the head of the profession in South Carolina covered a large part of the state and delivered several notable addresses before district societies. Within the year he plans to visit every section of the state and secure for himself first hand information of the problems which present themselves to the rank and file of the membership. Among the interests engaging the attention of the President are the following: From the organization standpoint he is appealing for an increase of membership from 953 to at least 1000 or more. He has tabulated the relative proportion of members and non-members in each district and urging that the eligi-

ble non-members be brought into the fold at once. We are confident that his appeal will be responded to promptly. To this end we would suggest that a committee on membership be appointed by every county society in the state, specifically charged with the carrying out of the President's wishes in this matter. Such action would put in concrete form the wise suggestions of the President and the work begin co-incident with the fall and winter programs of the constituent societies. Dr. Cathcart in his addresses stands unreservedly behind the State Medical Journal. He has satisfied himself that the Journal is a credit to the State Association as compared with the State Journals of other and even more populous commonwealths and requests the support of the profession in maintaining this high standard. The President is also calling attention to the opportunity of the next House of Delegates to elect an additional delegate to the American Medical

Association and is asking the various societies to give careful thought to the importance of electing a man peculiarly fitted by training and personality for this high office, who will be not only an honor to the State Medical Association, but the American Medical Association, also. Dr. Cathcart is boldly attacking two of the most acute problems before the American profession and the American public, namely, the education of physicians and nurses. He is calling attention to the disappearing service in many localities of adequate care of the sick on account of the irregular distribution of physicians and the economic phases of rural medical and nursing attention.

Dr. Cathcart has joined hands with many of the greatest authorities in this country in attempting to find ways and means of solving

these difficulties. We think that as a prominent educator himself, professor of surgery in our splendid state medical school, he will with his long experience be able to throw much light on these subjects. The President has visited Sumter, the city where the State Association will meet in 1926 and states that the profession there has already begun to make plans for our coming. The plans for the general program have been under consideration by the other state officers and hence this concerted action surely promises great things for our next meeting. It would appear to be the duty of every member of the Association to uphold the hands of President Cathcart in pushing forward to a successful conclusion the year's work as outlined by him.

ORIGINAL ARTICLES

DARKFIELD EXAMINATIONS—A PUBLIC HEALTH MEASURE

By F. M. Routh, M. D., Columbia, S. C.

For ten centuries the medical profession blundered along blindly following the teachings of Galen, who, although a great teacher and one of magnetic personality, still he characteristically typifies the dangers of false teachings.

A careful examination of the literature of today reveals the following description of a chancre, the initial lesion of syphilis:

1. Incubation-period—10 to 30 days. This is probably right.
2. Appearance—raw-ham colored, a clean sore.
3. Touch—parchment-like, hard in contradistinction to the soft chancroid or dirty sore.
4. They are most generally single.

After several hundred darkfield examinations, we are constrained to write this brief paper to warn the medical profession that it is well to remember that although Galens day was of the dark ages, in Medical history, still there remains at least a modicum of false teaching. We are all too prone to accept at face value most written statements of professional men particularly if they are considered authorities. It is well to cultivate a healthy skepticism, and to learn to form opinions gained from experience and reasoning. One noted authority has the following to say:

"Thus in any case in which syphilis is suspected but not wholly certain, it is advisable to withhold any specific treatment for syphilis until such time as secondary symptoms appear so that a patient may not be condemned to the lengthy process of treatment until the diagnosis is absolutely certain."

This is a dangerous teaching because it is almost certain that patients may be absolutely cured if treatment is instituted during the primary stage, very doubtful when begun dur-

ing the secondary stage, and very seldom when the tertiary stage is present.

The typical chancre is as described in the text-books but alas, how infrequently do we find typical text-book pictures of disease.

We are all quite familiar with the prevalence as well as the dangers of syphilis. Is it not time for us to take stock of ourselves and see if there is not some way or ways in which we may correct or at least remedy existing conditions? I think there is.

Many of our patients report that they have been advised by a doctor or doctors that their lesion is a little ulcer or herpes and not to worry. Others, that the doctor had cauterized the sore or had given them some kind of antiseptic without warning them of the possibilities that might occur in case it is a chancre. A case in point: About two weeks ago a doctor sent us a patient who had a sore that was not hard and which had a dirty appearance suggesting chancroid. This patient had consulted two physicians, the first telling him it was nothing and prescribing a little powder to dry it up, the other giving him a prescription containing mercury and potassium iodide without giving him any advice as to future treatment. A darkfield examination revealed a great many *Spirochaete Pallida* while the blood Wassermann was negative.

These things and many others of similar character are explanations of why quacks and cults thrive. In 1905, Hoffman and Schaudinn gave to the world their description of the *Spirochaete Pallida*, the cause of syphilis and with darkfield illumination they may be found with relative ease, particularly if the lesion has not been treated or cauterized.

It is extremely unwise to try to make a diagnosis of a venereal sore without the aid of the darkfield. I venture the opinion that if all venereal lesions could be examined under favorable conditions by darkfield illumination, and the patient properly treated and observed, that it would almost render the Wassermann test

unnecessary and incidentally prevent an enormous economic loss, a great deal of insanity and a world of unhappiness.

In our examinations we have observed the following:

1. That the sores showing *Spirochaetes* are very often multiple.
2. That they are not always hard. In this connection Osler says, "The initial sore has no invariable characteristics and may not be indurated."
3. That from the history the incubation period is frequently stated as being less than ten days.
4. That at least 95% of the patients have long foreskins.
5. That double infection chancre associated with chancroid are of very frequent occurrence.
6. That organisms are frequently found by aspirating enlarged lymph glands and indurated un ulcerated chancres.

As stated above, the organisms causing syphilis are relatively easy to find provided the sore has not been treated by cautery, powders, antiseptics or salves. When medicinal agents have been used, the organisms, are hard to find and it usually requires several examinations before they are detected.

I think it would be well for the profession to establish some rules of procedure to adopt when venereal sores are encountered and to drive these rules home to all physicians in South Carolina

As a suggestion they might be as follows:

1. To make every effort to find *Spirochaete Pallida* in all venereal sores before beginning treatment.
2. If treatment has already been attempted by patient or doctor instruct patient to keep sore clean by the use of castile soap and water for two or three days before doing darkfield. In fact most authorities agree that simple cleanliness is the most effective treatment for all types of venereal sores. It is without question the best preventative for Buboes.
3. Make repeated examinations in all negative cases where the history is at all suggestive.

It is a foregone conclusion that physicians cannot get cooperation in treatment from patients unless they themselves are certain of their diagnosis and how can they be certain by guessing? There are also too many cases diagnosed correctly by observation, given a dose of Salvarsan or Neo-Salvarsan and dismissed. They frequently show a four plus Wassermann in later life. In this connection, Elsner in Monographic Medicine has the following to say:

"During the primary stage of the disease, the patient as well as the attendant should recognize in syphilis a serious infection, which, if a favorable forecast is to be given, must include not the treatment of the palpable and visible symptoms alone, but the constitutional invasion by intensive methods. The prognosis of untreated cases of syphilis is unfavorable for the subject infected, his off-spring and the nation. There is no spontaneous cure of syphilis; no subject is safe to his surroundings who has remained untreated. Symptoms may disappear during periods which vary in length but in all there are recurrences which include detected or undetected lesions (mucous patches especially) from which infection may spread to the innocent. Bramwell has called attention to the fact and his experience is corroborated by that of others, that those syphilitics are most likely to develop the serious late manifestations of the disease who are insufficiently treated during the primary and secondary stages; who after the disappearance of visible lesions, neglect themselves. The prognosis, therefore, of constitutional syphilis is enormously influenced by the rational, scientific, and intensive treatment of the early manifestations of the disease."

There is another observation that is of importance. In all our examinations, all except one were in males. Is not this probably one explanation why syphilis is so prevalent? We should consider it our duty to see that in addition to treating our male patients, that female victims should also receive attention. As guardians of the public health, can we not fail to feel that some well-merited criticism might be laid at our doors. Is it not time for the medical profession to wake up? I think it is.

BENIGN GIANT CELL BONE TUMORS

(With Report Of A Case)

By J. S. Rhame, M. D., F. A. C. S., and A. R. Taft, M. D., Charleston, S. C.

Nelaton was the first to give us a clear description of Benign Giant Cell Sarcoma in 1852, and since many workers in this field have persistently studied bone tumors and have found that quite a number have been unnecessarily subjected to mutilating operations and amputations of limbs, owing to a lack of the proper conception of the pathology present, regarding the tumor as one of high malignancy, and drawing wrong conclusions when a patient did not die from recurrence or metastasis.

Such men as Bloodgood, Ewing, Coley and many others have added materially to the knowledge of Bone Tumors, and, thanks to the advances and perfection of X-Ray, we are now able to study these cases very early, and if proper examinations, with a clear detailed history, taking into account age, sex, etc., and using a rough outline suggested by Baetjer and Waters in analyzing bone tumors, namely:

1. Origin of tumor; 2. Presence or absence of bone production; 3. Condition of Cortex. 4. Invasion. We should in the majority of cases be able to make a correct diagnosis without exploration, yet at times, when there is a question of doubt, and we have watched the case carefully and have had repeated X-Ray examinations (and may I remind you that this is highly desirable), for, on one or more occasions repeated X-Ray examinations, after a slight injury or trauma to the bone, when there was pain or prolonged or undue delay in healing after a fracture, has revealed the presence of a Bone Tumor, and after correct treatment has been instituted a needless operation has been avoided and a useful limb saved.

It is evident that in the study of these cases, it is highly desirable and proper that the Clinician, Roentgenologist and Pathologist work together, so that correct diagnosis be arrived at

early, for upon a correct diagnosis as to whether he has a benign or malignant condition to deal with, will the surgeon be guided in his treatment.

About four years ago, thanks to the American College of Surgeons, a committee was appointed consisting of Doctors J. C. Bloodgood, James Ewing, and E. A. Codman, (Registrar of the Committee), to formulate as definite a nomenclature as possible. Hence, about two years ago, a committee was appointed by the Clinical Pathological Association consisting of Doctor MacCarty of the Mayo Clinic, Doctor Sondern and Doctor St. George of New York, and Dr. Bell of Minneapolis, and after deliberate and careful studying of Bone Tumors with the Committee of the Registrar, we now have submitted by Doctor Codman a nomenclature for use by clinicians, roentgenologists and pathologists, which it is hoped will clarify the situation, so that there will no longer exist such confusion in classifying Bone Tumors and that there will result such understanding and information as to enable the Registry and others to arrive at a clear and valuable opinion in the analysis of these cases.

No doubt there still exists difference of opinion, and Doctor Codman, in his report (see American Journal of Roentgenology and Radium Therapy, Vol. XIII, February, 1925, page 105), has requested that "if anyone believes there are other clinical entities, he should register some cases and let me pass them about from laboratory to laboratory for the opinions of others interested, as Ewing has done in the case of his tumor. We should convince our colleagues before undertaking to teach the profession or our unfortunate students." "The Registry invites criticism in the spirit of cooperation."

The following is the classification submitted:

1. Metastatic tumors of bone.
2. Periosteal fibrosarcoma.
3. Osteogenic tumors, benign and malignant.
4. Inflammatory conditions.
5. Benign Giant Cell Tumors.
6. Angioma (Benign and Malignant).
7. Ewing's Tumor.
8. Myeloma.

The benign giant cell tumors (benign giant cell sarcoma) is most common between the ages of twenty and thirty, and is probably the most common central tumor in bone with an intact bony shell, with or without fracture (Bloodgood). The disease usually occurs at the ends of the long bones, usually the lower end of the femur, the upper end of the tibia, the lower end of the radius, and mandible, although any long bone may be involved. Starting in the medullary canal it grows equally in all directions, but unlike a malignant tumor, it does not destroy the cortex, but owing to its slow growth expands it. There is no new production of bone, and is generally limited by a thin bony shell and shows no sign of invasion. The tumor generally has clear cut limitations and usually invades the condyle. It may proceed from one bone to another wherever two bones are connected by broad ligaments, the tumor advancing between the lamellae of the ligaments in those portions of the body where the bones are intimately connected, as in the tarsal bones, the vertebrae and the upper and lower ends of the tibia and fibula (Codman). Pathological fracture is rare if it does occur, it heals without ossification of the central area. *Gross appearance of tumor:* The tumor, usually confined within the periosteum circumscribed and not infiltrating, consists usually of solid portions and numerous small cysts filled with yellow or reddish serum, jelly-like in appearance, or fresh cut liver, and rather vascular. The solid portions are friable in consistence, and vary in color. It is easily removed from its bony shell.

Ewing states in an article on bone sarcoma (Archives of Surgery 1922 Vol. 4, page 496) "The structure shows an abundance of giant cells, with many small separate nuclei. They appear in masses or they surround capillaries or blood spaces. They are derived from the vascular endothelium but participate in the tumor process, sometimes extensively. The stroma is composed of many capillaries supported by a moderate number of spindle fibroblast, with nuclei showing normal or slightly increased chromatin. Tumors of this type are always strictly benign, in the oncologic sense, although they may lead to serious clinical dis-

turbances. They may be cured by curettage, by Roentgen-ray and radium, and some of them disappear spontaneously. They may become infected from curettage or exploratory incision, and a progressive cellulitis and osteomyelitis develop. The wide cavities left after curettage may offer some surgical problems."

Etiology: Trauma is considered by some to play a very important part. Coley states that in a series of his cases 56% showed trauma, and in a few it followed fracture.

Ewing states "the etiology of bone sarcoma is highly obscure, while trauma must be accepted as a very common exciting factor. Little is known about the growth or structure of bone which can explain the mode of action of the trauma."

There is usually slight swelling and pain over the affected area, and in a great majority of cases history of a sprain, injury, etc. Seldom do we find acute pain and tenderness, yet they may occur.

Treatment: Early diagnosis is of prime importance and essential for successful treatment, if we wish to avoid possible loss of function of limb, or too great destruction of bone and possible fracture.

I am of the opinion that owing to the possibilities of error at times in differentiating by X-Ray and clinical history, it is safer to explore and augment the opinion by tissue examination, and being prepared to proceed with bloodless operation (using rubber band) preferably, curettement, thermal cauterization (electric cautery), carbolic acid followed with alcohol, and packing cavity with gauze soaked in 50% Zinc Chloride Solution for a few minutes. If there is doubt of tumor being malignant, then it is best to leave wound open and insert radium.

The reasons, of course, for above procedure is on account of the great chance of metastasis having already taken place in the lungs and we are reminded by practically all observers that patients who have had osteogenic sarcoma, amputation has been performed, they usually die within a few months to 2 1-2 years from metastasis in the lungs, only a very few cases being on record where patients are well 3 years after amputation.

So Bloodgood has suggested in view of this fact he believes we are justified in attempting a cure by the same method. Others in addition advocate Coley's toxin plus post operative Radium and deep X-Ray therapy.

The following case which came under my care in June 1923, the report of which I beg to submit, to my mind bears out the value of the treatment outlined above.

Case—E. N. M., white, male, well-nourished and developed, age 36 years, occupation traffic policeman. Family history negative. Patient was admitted to Roper Hospital June 1, 1922. immediately after receiving an injury to left knee, stating that while walking he slipped and fell on asphalt roadway.

In the fall the left leg was twisted, bending the knee underneath him. He was conscious of something crack in the knee, and was unable to extend leg without considerable pain.

An X-Ray examination was made the following day (June 2, 1922), which, according to the Roentgenologist report, showed "a small piece of periosteum chipped off femur just above condyles. The bones of joint including patella are otherwise negative for fracture or dislocation." A diagnosis of sprain of left knee was made. The leg was kept at rest, with

local applications and later traction was applied.

The patient requested a discharge from the hospital, and being determined to go, the traction was removed, the knee strapped, and he left the hospital June 20, 1922.

After leaving the hospital, he used crutches for several weeks and then, by the aid of an elastic knee support and a metal hinged knee brace, he was able to resume partial duty, which did not necessitate being on his feet continuously. During June, 1923 (one year after injury) he received treatments from a masseur, which consisted of baking the knee, hot magnesium sulphate packs and massage; while taking these treatments, he fell and received a second injury to the knee, which caused him considerable acute pain with an increase in the swelling.

It was at this time that I first saw this patient, and I suggested a discontinuance of the hot packs and massaging, and advised application of ice packs to the knee, complete rest, elevation of limb and X-Ray examination, but it was not until about two weeks later that I came in charge of patient, in the meantime an X-Ray of the knee had been taken, the results of which at that time I was not informed.

On July 13, 1923 I had the patient readmitted to the Roper Hospital, at which time the left knee was painful and swollen to almost twice the normal size.

The laboratory findings on admission were as follows:

Blood examination: Hemoglobin (Dare) 85%
Leukocytes 7360
Poly-Morphonuclear
Leukocytes 85%

Urine examination on different dates was as follows:

Acid
Sp. Gr. 10.10 to 10.20
Cloudy
Albumin plus two to plus four
A few pus cells
Chyle present at times
Bence-Jones protein negative.

The total amount day urine 1385 c. c., night urine 362 c. c. P. S. P. functional first hour 29 per cent, second hour 23 per cent.



No. 1. Taken At Time of First Injury, 18 Months Previous to Operation. Note Split in Periosteum.

Blood, Wassermann on two occasions was negative. *Micro-filaria bancrofti* present in blood.

Urethral smear negative.

Examination of Tonsils, small without signs of infection.

X-Ray examination of teeth negative.

During this time temperature, pulse and respiration normal, the patient being kept in bed with local applications and Buck's extension. September 5th, 1923 left knee aspirated under aseptic precautions, no fluid obtained.

September 14, 1923, the knee was again X-Rayed with the following results: "A large area in head of left femur which shows rarefaction. This is much more marked than in July, 1923. There is also an area of somewhat the same type, except not so pronounced in the head of the Tibia. There is also some Arthritis, but far too little to account for symptoms. This condition is atypical, but bulging periosteum is very suggestive of growth of medullary sarcoma."



No. II. Growth of Bone at Examination Two Months Prior to Operation.

Dr. Joseph C. Bloodgood of Baltimore for his interpretation and opinion.

Dr. Bloodgood forwarded the following opinion: "History and X-Ray indicate Benign central giant cell tumor lower end femur. Advise first deep X-Ray treatment. I think we can practically exclude sarcoma. We are justified to see the effect of the X-Ray treatment, taking an anterior and posterior X-Ray picture every two weeks.

If the X-Ray shows thinning of the bone shell then the operation should be done at once, curetting."

The X-Ray treatments were given over a period of two months and frequent examinations made, when it was found that the bone shell was thinning and a break in same. On November 20, 1923 X-Ray of chest showed no evidence of metastasis—Operation: Performed on November 24, 1923. Tourniquet applied and lower end of femur and external condyle exposed, revealing a tumor size of a small orange, involving external condyle and extending up above epiphyseal line into shaft. There was slight roughness on outerside above epiphyseal line, apparently a healed fracture. Tumor formation covered with thin leathery

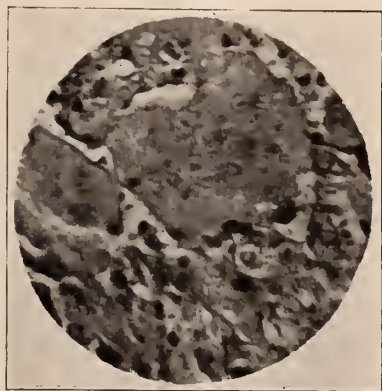


No. III. Few Months After Operation. Shows How Bone Has Been Removed by Curette.

After consulting with the Roentgenologist and realizing the difficulty of a correct diagnosis, we decided to forward the X-Ray films with a brief abstract of the Clinical History to

membrane of a yellowish tinge. Tumor was thoroughly curetted away, using electric cautery, followed with pure carbolic acid, then alcohol and cavity packed with gauze soaked in 50% zinc chloride solution for a few minutes, small piece of iodoform gauze left in for forty-eight hours. Wound closed, limb put in plaster cast and window cut in same.

Dr. H. H. Plowden, Pathologist, reported as follows: "Giant Cell Tumor of Femur. *Gross and Minute appearances:* Number of small ragged, beef red pieces of tissue in which there appeared to be much blood. There was present, also several bits of yellowish looking material which was distinctly granular in appearance, and somewhat gritty to the feel. *Frozen sections* of this tissue showed it to be a giant cell tumor. There was a plentiful blood supply through well formed blood vessels. The giant cells were very numerous making up much of the bulk of the tumor, and were lying in a meshwork of supporting fibrous connective tissue. *Paraffin sections* showed essentially the same picture as the frozen sections. The giant cells were numerous, their nuclei were small, deeply staining, separate from each other, and frequently grouped in the centre of the cytoplasm. In the cells were noted occasional vacuolated spaces. The supporting framework was loosely arranged spindle cells surrounding the blood vessels and sinuses."



No. VI. Oil Immersion Microphotograph Showing One Enormous Giant Cell and One Moderately Large One.

Patient remained in the hospital until February, 1924, recovery uneventful. A Calliper splint was applied to left leg, and he has made a good recovery, being able to use limb with-

out discomfort. Several X-Ray examinations since show no evidence of recurrence and considerable new bone tending to fill in defect and in opinion of Roentgenologist bone quite sufficient to bear weight.



No. IV. Later—Showing Some Reproduction of Bone.



No. V. Last View—Showing Much Reproduction of Solid Bone.

Summary: 1. When a patient complains of localized pain and swelling in a limb, repeated X-Ray examinations should be made.

II. The most common central bone tumors with an intact bony shell, with or without fracture, are benign giant-cell tumors.

III. Owing to the difficulty in making a correct diagnosis from clinical data and X-Ray, an exploratory operation and tissue examination should be made before there is too much destruction of bone.

IV. Early recognition of condition and preservation of bone shell after curetting offer best functional results.

V. Benign Giant-cell bone tumors do not recur if properly curetted with thermal or chemical cauterization.

VI. Needless mutilating operations and the sacrifice of useful limbs can be avoided.

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DISCUSSION

DR. GEORGE H. BUNCH, Columbia, S. C.:

Dr. Rhame has told you something of the confusion that has prevailed in the understanding of bone tumors up to the present time. Dr. Bloodgood, I think, was the first to make the distinction between these giant cell tumors and true sarcomas of bone. Up to that time they were considered the same, and limbs with bone tumor were universally sacrificed. Now we know that giant cell tumors are not sarcomas at all, because they do not metastasize. True bone sarcomas metastasize early, and these patients, even with early AMPUTATION, die from metastases. The giant cell tumors do not metastasize, and the patients get well if properly

treated with local treatment. We have had several of these cases in which the diagnosis was made by X-Ray, the tumor treated by curetting and radium put in. The tumor cavities gradually fill up with bone, as Dr. Rhame's cases have shown us nicely on the screen. It is a real advance that we are now saving limbs which before have been uselessly sacrificed. We should be conservative in our treatment of suspected bone sarcoma, because if it be true sarcoma and we amputate, we have lost our patient anyway from metastases, and if it be giant cell tumor we have needlessly sacrificed a limb.

PUERPERAL INFECTION

By Lester A. Wilson, M. D., Charleston, S. C.

In obstetrics probably more than in any other branch of medicine old methods of treatment persist long after their efficacy has been disproved by more recent scientific knowledge and experience. In recent years our conception of puerperal infection has undergone a great change. Much has been learned regarding the mode of invasion of infective organisms.

The endometrium, after labor and abortion, should be considered as a traumatized wound undergoing the usual process of wound repair, and may be infected by pathogenic microorganisms, in which case it is virtually a large puerperal ulcer. It must not be supposed that the presence of necrotic decidua, or even a piece of retained placenta within the cavity of the uterus will produce infection. In order to have an inflammatory reaction there must be an infection. Retained products of conception simply act as a culture media for bacteria and prevent proper retractions and contractions of the uterus, which in turn diminishes the normal protection of the individual against bacterial invasion. When organisms invade a raw surface the lesion is at first quite localized; there is inflammatory reaction with a certain amount of destruction of tissue. Whether the condition remains localized depends upon the degree of the reaction or the number and virulence of the organism, or perhaps ill advised treatment as for instance curet-

tage, or intrauterine douches; which so frequently does harm by increasing the trauma, and by spreading the infection.

SYMPTOMS

For the first two or three days the puerpera is fairly well, but an acute observer will find that there are vague indications of the trouble that is brewing, slight malaise, prolonged after pains or their recurrence after they have subsided. On the third, fourth, or fifth day there may be a chill, or a chilly sensation, rise of temperature and the usual febrile symptoms, the temperature varies from 101 to 104°, depending upon the severity of the infection. A rapid pulse may be the first symptom noted and is especially indicative of impending danger. The abdomen is usually distended, and is more or less tender. The uterus is larger than it should be on the day in question and soft—that is, in a state of retarded involution. The lochia may have a musty odor although a streptococic infection frequently does not produce a foul discharge.

DIFFERENTIAL DIAGNOSIS

A study of the history of the labor may indicate at once the site of the infection. One must exclude the possibility of the fever being due to other causes than puerperal sepsis. This involves a careful study of the heart, lungs, kidneys, breast and other organs. Breast infections can be ruled out by the absence of such symptoms as pain, tenderness, and hard masses. Pyelitis can usually be eliminated by the absence of pain in the costo-vertebral angle, by the absence of pus in the urine and finally, if necessary by cystoscopic examination of the kidneys. Acute infectious diseases as typhoid fever, influenza, malaria, etc., can be ruled out on the basis of their low white blood count. One must bear in mind that the white blood count during the puerperium is slightly increased, ranging from 8000 to 12,000, while in septic infections there is a marked leukocytosis ranging from 15,000 to 30,000 or even higher. It is interesting to note, in spite of the popular belief that there occurs an acute exacerbation of malaria after labor, that in the series of 1000 cases referred to later, in no in-

stance was the plasmodium found, although the blood was examined in febrile cases.

If we admit that all puerperal infections result from the inoculation of the puerperal wound with pathogenic organisms, unquestionably retrograde infection from the vulva, vagina or cervix may occur, as is illustrated by case no 36404—Granuloma Inguinale with ulceration of the vulva, delivered without an examination but later became infected. However, nothing is better established in clinical medicine than the fact that the vast majority of such infections are carried in by the hands, or instruments of the attendants. Naturally therefore, the prophylactic treatment must include the proper sterilization of the hands and instruments as well as the proper preparation of the vulval orifice.

Statistics based on a series of 1000 cases, 300 from my private practice, and 700 from the clinic at the Roper Hospital give the following figures. In the Roper Hospital cases, 28 became infected, 4% of the total in this series; 8 deaths occurred. In the private series of cases there were two infections, or less than 1%; both of these cases recovered. The value of prophylactic treatment is well illustrated by these statistics. In both series the rate of abnormal and complicated cases was high. In the Roper Hospital series about 70% were abnormal, being either operative or suffering from various complications of pregnancy. Many of these cases had received ignorant or careless attention before admission. Abnormalities were practically as high in the private series, since many were seen in consultation. They however in general, had been given adequate prenatal supervision with the resultant small incidence of infection.

My experience has led me to believe that the time to treat infection is before labor starts. All possible sources of infection, as focal infection, pyelitis, purulent vaginal discharges, etc., should be treated before the onset of labor. In the robust and healthy, whose defensive mechanisms enabled them to throw off the invading organisms, our usual sterilization suffices, but in women who have lost much blood or who are otherwise depleted, special measures should be instituted. In all opera-

tive cases where infection is most likely to occur, or certainly where there has been a loss of blood, it is of vital importance to build up the patients resistance by blood transfusion, and aid drainage before the organism has the patient on the defensive. We may here make a worth while analogy to a military engagement, where the wise general strengthens his forces and takes the offensive before the enemy places him on the defensive.

PREPARATION OF THE PATIENT

The preparation of the patient for delivery or vaginal examination, should be the same as the preparation for an operation. She should be given two enemas, the vulva shaved and scrubbed with lysol solution, and at the time of an examination or a delivery should be painted with half strength Tr. Iodine. She should be draped with sterile sheets in such a manner that only the painted area is exposed. The attendants hands and arms should be scrubbed for at least ten minutes, followed by a solution of Bichloride or Cyanide of Mercury, and Alcohol; and be dressed in a sterile gown and wear sterile gloves.

Vaginal examinations should not be made where rectal examinations will suffice. However I do not think this rule ought to be enforced at the risk of prolonging labor, which might occur if one is in ignorance as to the situation in the pelvis.

TREATMENT

When puerperal infection is suspected the method of treatment outlined below has given me the best results. Elevate the patients head in exaggerated Fowlers position, for the purpose of aiding drainage, place an ice cap over the uterus either continuously or alternating four hours on and four hours off. Ergot is given in small doses, and Pituitrin may be given twice a day. The patient should be given a full or forced diet. Stimulation or other symptomatic treatment may be given as is indicated. The most valuable and often neglected remedy is blood transfusion, either the direct, or the citrated method can be used. I give transfusion before symptoms of infection appear in all cases that have lost much

blood, and also in cases where infection has already begun. To my mind this is the best method of adding to the patients power of resistance. Several years ago I tried giving intrauterine douches and performing curettage, but my mortality was extremely high. I have often seen patients treated in this manner immediately have a chill and a rapid rise of temperature showing all evidence of a bacteremia. I regard them as most dangerous procedures.

A bacteremia or septicemia is usually fatal. Young has advocated Mercurochrome intravenously. It has not given us promising results in general infections from other causes. Vaccines have been disappointing. I have not tried drainage of the thoracic duct.

Local treatment consists in removing stitches if the wound is infected. In those cases terminating in pelvic abscess it becomes necessary to drain, which is usually done through the vagina. Unfortunately this does not always suffice since these abscesses are frequently multilocular and therefore must be drained through the abdominal wall as well as through the vagina.

DISCUSSION

DR. CARL B. EPPS, Sumter:

I was especially interested in what we might call Dr. Wilson's preoperative treatment, because these cases should be treated practically as operations, as Dr. Wilson said. I consider that it is mainly on these lines that we can help most. The termination of pregnancy should not be treated as an emergency way. We here in the South, perhaps more than anywhere else, owe it to ourselves, as well as to every one else, to handle these cases better, to handle them scientifically. There is one thing that the author says with which I must disagree. That is, he condemns the use of instruments in all cases, it seems, while in our experience in certain cases, at least, the use of instruments, of dilatation and gentle curettage, has helped. I do not mean the use of a sharp instrument, but one of the dull curettes, used carefully. By the use of these instruments, we can open the parts and secure free drainage, which we should have here, as in all other cases of infection. This is undoubtedly an aid. Otherwise the os will close down and drainage will be absolutely interfered with. Dr. Wilson says that he has often seen chills and high fever after the use of instruments. On the other hand, I have often seen a high fever fall at once after this operation. The retained placenta has become, after labor, a foreign body and a hot bed of infection.

INTERNAL MEDICINE

J. H. CANNON, M. D., F. A. C. P., CHARLESTON, S. C.

THE RIGHT AND WRONG USE OF DIURETICS

By *Henry A. Christian, Med. Clin. N. A.,*
May, 1921

Among the most commonly prescribed class of drugs, are those whose action is supposed to result in an increased flow of urine. Since the disease for which these drugs are most frequently used are undoubtedly on the increase, a brief consideration of their use and abuse by Dr. Christian is very timely.

As he points out, the composition of the urine in the last analysis, is that which remains after filtration into the glomerulus and the reabsorption back into the circulation of certain constituents by the tubular epithelium, in relation to the composition of the blood.

The following paragraph illustrates so well and yet so briefly the mechanism concerned, that I quote him verbatim.

"The amount and quality of urine excreted, theoretically can be influenced by changing the composition of the blood, the rate and pressure of blood flow, the character of the filtration and absorption membranes, or the cellular activity of the epithelial cells. Some urinary constituents, such as urea, called nontreshold substances, after passing through the clomerular membrane by filtration, undergo no reabsorption in the tubules; others known as threshold substances, are reabsorbed in varying degree by the tubular epithelium; some as glucose, practically completely; others, like sodium chlorid, only partially. The latter only appear in the urine when they exceed a certain amount in the blood, i. e., exceed their so-called threshold value. This is a very complex mechanism, not as yet thoroughly understood for the normal kidney. Both, cellular vital activity (physiology) and the physical properties of living membranes and of dissolved sub-

stances (physical chemistry) play their part in it. Diuretic drugs, to produce their effects, must influence this complex mechanism (pharmacology) and, furthermore, not alone in the normal kidney, but under changed conditions brought about in its structure by disease (pathology); changes which may be focal or diffuse and involve various levels and structures of the renal excretory unit, i. e., the glomerulus and tubules."

The above illustrates very briefly, how complex is the mechanism involved in renal function. Consider then, that in giving a diuretic, we are attempting to alter this mechanism, so that, there shall result an increased function, resulting in an increased output of water and other materials. Consider also, that although the pharmacologist has given us some information as to how some diuretics act, it is quite certain that all do not act in the same way and when recall that it is usually a diseased kidney that we are trying to stimulate to increased function, we should bear in mind that our knowledge of their action is based largely on clinical observation and that this observation has shown that they have different actions, or at least one may be effective when another given under similar circumstances in ineffectual.

As he points out, we give diuretics to promote the elimination of water, thereby decreasing edema and to remove deleterious products which have accumulated in the body, such as, nitrogenous compounds, sodium chlorid, possibly other inorganic substances and that hypothetical toxic substance that causes the condition we know as uraemia.

To use diuretics for such purposes is rational, but we should watch its effect and be governed in its further administration by results. Thus, a diuretic to be effectual results in increased elimination of water and usually solids. Therefore, its administration should be accompanied by a check on the fluid intake

and output and by weighing the patient. This much should be done. If desired, one can go further and quantitate certain constituents of the urine in relation to food and fluid intake to see whether they are being excreted in increased amount. Tests of renal function from time to time may be made to see if improvement is taking place. Since we do not know the substances causing uraemia, we can only be guided here by clinical improvement.

If, following the administration of a diuretic, we are unable to note a diuresis, that diuretic should be discontinued. To continue its use will probably not produce results and will increase renal fatigue or irritation or both and therefore does actual harm and impairs such elimination as would otherwise take place.

On the other hand, suppose the giving of a diuretic results in a copious diuresis—the drug should be stopped and the kidney permitted to rest or there may result from increased work a renal fatigue, accompanied by anuria, a condition surely to be avoided if possible.

The rational prescribing of diuretics therefore, carries with it certain requirements; they should be prescribed alone and not in combination with other drugs, so that its action may be closely watched and discontinued if not producing results; it should not be given constantly, but intermittently, even though it may be producing results; a diuretic given for one or two days and not producing a diuresis should be discontinued and another one tried, for as stated before, one may be effectual where others fail.

One should bear in mind that in the edema of nephritis, it is very unusual for drugs of the diuretic group to produce the results hoped for and other measures should not be neglected. We should not forget, that diuretic drugs in such cases may do great harm if pushed by increasing renal irritation and may greatly depress an already impaired renal function.

In cardiac edema digitalis is a diuretic. We should understand that its diuresis is dependent upon an improved circulation and not upon a direct action on the kidney itself. Therefore, their use in renal edema without circulatory impairment is usually not accompanied by a satisfactory diuresis.

Drugs of the diuretic group (the most commonly used being sodium acetate and citrate, caffeine-sodium-benzoate, sodiotheobromin-salicylate (diuretin), and theophyllin) given intermittently, in conjunction with digitalis (and a good tincture is just as efficient as the infusion provided, the relative dosage is the same; a half ounce of the infusion, a dose commonly given, is equal to thirty-six "minims" of the tincture) in cardiac edema, usually gives best results, often eliminating enormous quantities of fluid.

The condition in which a copious diuresis seems most imperative is in uraemia and here diuretic drugs frequently disappoint us. The condition of the patient is often of such urgency as to demand our best efforts to relieve them. Since the hub about which all therapeutic efforts revolve in uraemia is elimination, it would seem especially desirable to promote increased renal function and elimination by this route.

I wish to point out however, that observation in the post mortem room and in the pathological laboratory has shown us that, in the chronic nephritic dying of uraemia, there is practically invariably, an acute element, either inflammatory or degenerative engrafted upon the chronic process. Therefore, in the presence of a more or less extensive chronic process and an additional acute exacerbation in the kidney, it is requiring a great deal of a drug, to expect it to produce a diuresis in the presence of such pathology on the one hand and on the other serves to emphasize Dr. Christians point of doing harm by irritating a badly damaged kidney and further depressing its function, if we push these drugs when not producing a result. Certainly, we should be more cautious in their use in uraemia than in other conditions for which they are used.

Our best diuretic for uraemia is water, 2500 to 3000 cc. in 24 hours, regardless of the presence of edema. Given preferably by mouth, as increased fluid intake, or normal salt solution may be given as enteroclysis, hypodermoclysis, or intra-venously. If the increased fluid intake increases urinary output, there is greater chance of eliminating the hypothetical toxic substance causing the uraemia. If it is not

eliminated, it will collect in the tissue spaces and apparently removes the toxic substance from the blood stream, often with improvement of symptoms.

The elimination of sodium chlorid, whose retention is most often associated with retention of water, is rarely accomplished by diuretics. A reduction of salt intake below output may be followed by increased eliminatoin and this should be done in such cases. Diuretics, such as diuretin, caffeine and theophyllin, should be used tentatively and if not accompanied by results, their use should be discontinued.

In the dry type of salt retention, there has not been sufficient observation as to the action of diuretics to warrant a definite statement as to their efficacy. Its retention in excess may be harmful, some (F. M. Allen, J. A. M. A. March 6th, 1920) believes that a marked reduction of salt intake results in lowering of hypertension in such cases. Dr. Christian believes such cases should receive a tentative course of the diuretics, but feels that excessive water to aid in its elimination, may raise the blood pressure and does not consider it likely to act as a satisfactory diuretic in this condition.

Retention of nitrogenous products occurs

with advanced kidney pathology and indicates impairment of renal function; themselves probably not toxic in the amounts retained, but serve as an index of retention of other unknown toxic substances, the latter being the cause of the symptoms. That diuretic drugs fail us in such cases is well known, which is hardly more than we can expect in the presence of such advanced pathology. There is only one possible exception and that is water.

It is understood that the above discussion has been limited to diuretics only and that other measures are not to be neglected in treating such cases.

Dr. Christian concludes by reminding us that, "diuretics should not be used merely because a renal lesion has been diagnosed; they have definite indications and should only be used when these indications have been met. Used judiciously and under proper conditions they are productive of good. Wrongly used they do harm. There is a right and wrong use for all diuretics. Discussion has been limited to a few commonly used. Further study should throw more light on these and better ones will surely be found. The action of diuretics on the damaged kidney, rather than on the normal is what particularly needs investigation from pharmacologists and clinicians."

GASTRO-ENTEROLOGY

By F. M. Durham, M. D., Columbia, S. C.

Arthur S. Morley F. R. C. S. England in his small book "Hemorrhoids" gives a very interesting account of why he experimented with the interstitial injection of internal hemorrhoids, and later became one of its most ardent advocates. Shortly after the commencement of the war he was appointed as temporary surgeon to the out-patients of St. Marks Hospital, London. Increased pressure was made upon the Hospital for beds owing to the admission of soldiers with wounds involving the rectum. For this reason it often happened that many patients with piles had to be treated by palliative method for several months before room in the hospital could be procured.

"In the interval they came week after week to my out-patient department, complaining of bleeding and prolapse, and not infrequently totally disabled for work by reason of their hemorrhoids. Among them at that time were many munition-workers and others, whose disability was a matter of moment to the State as well as to themselves. Some among them—apart from all other considerations—were being "bled white" in the literal sense of the term, and that in spite of treatment by all the usual palliative remedies. Naturally when my attention was drawn so forcibly to the treatment by injection by Sir James Goodhart's article, I was tempted to try it.

"I well remember the first case in which I tried injection. The patient was a woman of about thirty, which was employed at a munition factory. She had been loosing blood for months, and was becoming so anaemic that she was unfit for work. There was also a good deal of prolapse. I injected her with a 20 per cent solution of carbolic acid in glycerine

and water, and told her to report the following week. She came as directed, and, much to my surprise, reported that she had not lost a drop of blood during the interval, nor had the piles come down. On passing the speculum, I saw that the piles were much smaller, but that still quite obvious. I reinjected them, and repeated the process until they had been injected four times altogether. After that she received a notice that there was a bed available for her, and she was admitted. She was given an anæsthetic and examined, but *no hemorrhoids were found*. She was therefore discharged, and was sent back to me in the out-patient department with the note that my diagnosis was wrong, as she was not suffering from hemorrhoids at all."

Morley's records show over 3000 cases of hemorrhoids treated by interstitial injection and his results have been equally as effective as those of his surgical colleagues. And have been done without the pain and loss of time from work that necessarily follows surgical operations.

The carbolic acid interstitial injection treatment originated in America, about the time of the Civil War and was carried to England in 1888 by Edwards, but there were no advocates of the method until Dudley Wright, Sir James Goodhart and Morley by their writings and excellent work made it popular in England, where it is called "The American Method." In America carbolic acid has given place to quinine and urea hydrochloride as an injecting agent. The quinine and urea hydrochloride is just as effective as the carbolic acid, and has the advantage of being a local anaesthetic producing an anaesthesia lasting several days. The parts are healed before sensation is restored.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

FRACTURES OF THE OS CALCIS

A. C. Hall of Detroit, Michigan in the American Journal of Roentgenology and Radium Therapy reports over 100 cases of fracture of the Os Calcis in an eleven year period.

He has devised a specific technique where he uses when there is impaction or undue deformity.

All injuries to the heel should be X-Rayed when first seen. Many of these accidents result from a fall of four or more feet, the patient landing on a hard or concrete substance or floor.

The Os Calcis is driven up against the astragalus, the fragments may be driven upwards or they may separate laterally.

The Tendo Achilles contracts and tends to hold the posterior fragment in an abnormally high position. Flat foot is thus predisposed too.

The old plaster cast method of treatment has been discontinued as it produced a disability of from 6 to 12 months.

Hall's technique.

1. Place patient in bed at absolute rest 7-10 days, till active reaction has subsided.

2. Lengthen Tendo Achilles by open opera-

tion under ether anaesthesia. This allows free antero-posterior motion of the posterior fragment of the bone.

3. Place patients foot in lateral position with sand bag under the internal malleolus; place sterile roller bandage under external malleolus and strike it several times with a mallet. This helps correct lateral displacement.

4. Make short incision on either side and just in front of tendo achilles, and insert a heavy steel sound. Use same to make downward traction on the heel, while proper pressure is made against the hollow of the foot to restore the normal arch configuration.

5. Apply plaster cast in such a way as to maintain this corrected shape of the foot; and mold the cast by manipulation so as to preserve the arch and to retain the downward position of the heel bone.

6. Remove cast in one month and institute physio therapy and massage. Institute knee, ankle and foot movement without weight bearing, and after three or four weeks apply an orthopedic sheet with a felt pad to support the instep and a steel brace from heel to the knee, the upper end being strapped by a cuff to the leg.

By such technique the disability period is rarely over three to four months.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

POLIOMYELITIS AS A PUBLIC HEALTH PROBLEM

Due to the existence of a number of cases of Infantile Paralysis in South Carolina during the past six months, it is timely that something should be said as to the symptoms and control of this disease.

It has been observed that in those years when poliomyelitis becomes unusually prevalent in the late spring and early summer, there is nearly always an extensive and disastrous outbreak of the disease in the late summer and early fall, when, under normal conditions, the disease is seasonally more prevalent. The prompt institution of control measures at the present time, therefore, is of the utmost importance in order that the chances for a widespread epidemic during the coming fall may be minimized.

Poliomyelitis, perhaps, is one of the most common of the communicable diseases. Since paralysis occurs, however, in but a small percentage of cases, proper diagnosis is very often not made. Whenever the disease becomes epidemic, all cases of sudden, acute illness in children must be regarded with suspicion. It should be remembered that poliomyelitis is not essentially a disease of the central nervous system. It is only in a relatively small number of cases that there is any invasion of the central nervous system. Paralysis is purely an accidental and incidental occurrence, and in reality it occurs rarely. Seventy or eighty per cent of all cases of this disease present merely the aspect of an acute generalized affection without sign of injury to the central nervous system. Environment and social conditions have little bearing upon the appearance of the disease, and it occurs as commonly in sparsely settled rural districts as in crowded cities. It

is caused by a filterable virus which is unknown apart from infected human beings. This virus possesses a high degree of resistance, both to cold and to ordinary degrees of heat, for long periods of time. If enclosed in albuminous matter it withstands drying quite readily. Since it can withstand both moist and dry conditions, it can easily be carried into the respiratory tract as a spray produced by coughing, sneezing, etc. It is doubtful if agents, other than man, play any conspicuous part in the transmission of the disease. Poliomyelitis is a human borne, contagious infection, with its portal of entry in the upper respiratory tract, especially in the naso-pharyngeal mucous membrane.

For the sake of safety, cases of severe intestinal disturbances or of common colds, occurring especially in young children, at the present time should be regarded with suspicion. They should, accordingly, be isolated without delay and isolation should be maintained at least until the nature of the illness is definitely determined. The age of the patient should not be considered in making diagnosis. While most cases occur in children around two years of age, many adolescents and young adults are attacked. The younger children seem to weather the acute stages better than adolescents and young adults, among whom the death rate is especially high.

Since the adult carrier is known to play an important part in the transmission of this disease, it is important that whenever a case of poliomyelitis appears in the family it should be promptly reported to the local health authorities and every precaution should be taken as to the quarantine measures instituted for the proper protection of the public against this disease.

MINUTES

REPORT OF THE COMMITTEE ON HEALTH AND PUBLIC INSTRUCTION OF THE SOUTH CAROLINA MEDICAL AS- SOCIATION

Mr. Chairman, and members of the House of Delegates of the South Carolina Medical Association.

I have the honor herewith to submit the report of the committee on Health and Public Instruction.

ACTIVITIES OF THE COUNTY HEALTH DEPARTMENTS

The primary activities of the County Health Departments has been to educate the people of the State in matters pertaining to the cause and prevention of communicable diseases and the possibilities for community health promotion.

This has been accomplished by

1st. Public addresses—using when desirable illustrations with lantern slides, charts, models and motion pictures.

A special motion picture unit operates for the use of the Health Departments in this work.

2nd. Educational literature furnished by various health organizations and the State Board of Health, dealing with various phases of health conservation is distributed.

3rd. News articles are published in the press of the country relating to the work of the Health Department—and to general health subjects.

4th. **Public Health Exhibits**—Exhibits are arranged at the county fairs, public schools and such other places as may be practicable.

5th. **Other Educational Methods**—Other educational work is carried on, such as lectures to classes in home hygiene, and care of the sick, nutrition classes, organization of Little Mothers' Leagues and juvenal boards of health in the schools.

CONTROL OF COMMUNICABLE DISEASES

The County Health officers are directly concerned with the spread of contagious and infectious diseases and the following methods have been used.

1st. Promptly securing the report of contagious diseases through the doctors, school authorities and heads of the households.

2nd. **Epidemiological investigation** to determine the source of the disease as a basis for its elimination. Every primary case of small pox,

diphtheria, scarlet fever, typhoid fever, poliomyelitis and cerebrospinal meningitis is visited by the Health officer in person.

3rd. Home visits are made by the county nurses to give instruction in the prevention of the spread of disease.

4th. Office records and a spot map are used showing the current and past prevalence of communicable diseases in the county.

5th. **Public Health laboratory examinations** for the diagnosis of communicable diseases either by local laboratory facilities or by examinations made at the Hygienic Laboratory in Columbia. Supplies for collecting laboratory specimens are kept at the office of the County Health Departments for quick distribution to the physicians.

6th. By consultation with attending physicians relative to cases of communicable diseases whenever there may be some question as to a definite diagnosis.

7th. Free immunization of all contacts in cases of typhoid and small pox and in a limited number of diphtheria cases.

OTHER ACTIVITIES OF THE COUNTY HEALTH DEPARTMENT

Health Ordinances

The County Health Officers have been instrumental in having many small towns pass new and sanitary ordinances during the past year. The Health Department in Charleston has been largely instrumental in the erection of a sanatorium in that county.

Examination of School Children

An extremely important piece of work was completed by the Health Officers in the complete physical examination of 18,527 school children. Many defects were found and corrected.

Rabies

Several counties have offered the preventive treatment for dogs free of any charge. In other counties it is offered at cost. It would be well if every dog in South Carolina was inoculated against rabies.

Clinics

Tonsil and adenoid clinics were held in the following counties: Darlington, Orangeburg, Anderson, Newberry and Charleston, Eye clinics

in Charleston and Newberry Counties—Orthopedic clinics were held in Anderson and Cherokee Counties. The dental clinics under the direction of Dr. E. A. Early have made splendid progress during the past year, approximately 35,000 children have been examined. Equally important with the correction of dental defects in the educational work carried on by this department with the tooth brush drills and lectures to the children on oral hygiene. It is safe to say that the future generation of South Carolina will have sounder teeth than the present.

Sanitation

Provision of safe public water and milk supplies and of sanitary methods of excreta and sewerage disposal constitute a primary duty of the Health Department and concerted efforts to secure these sanitary improvements have been made. In some of the counties, community surveys were carried on in which the sanitary inspector made a house to house canvass in an effort to secure better sanitation. Special visits were made to homes having contagious diseases.

Schools

In addition to making an annual survey of all the schools in the county the Health Officers have made persistent efforts to induce the school board to provide a safe supply of drinking water, sanitary toilets or water closets, adequate light and ventilation and such other facilities in each school as are required by statute for safe guarding the health of the pupils.

Rural Sanitation

Improvements in the sanitary condition of privies and water supplies and adequate screening of homes has been aimed at by the inspectors.

Milk and Food Supplies

Sanitary inspection has been made of dairies, milk depots and food establishments. In some counties model milk ordinances have been passed.

INFANT WELFARE AND CHILD HYGIENE

Under the able direction of Miss Ada Taylor Graham, this work has been carried on in a most creditable manner in South Carolina, at the close of 1924, there were 45 nursing services

Educational

1st. A general educational campaign in regard to various phases of child hygiene has been conducted. Every available means has been used in carrying out these campaigns by visits of the nurses to homes, talks and demonstrations

to mothers clubs and other groups of interested people. Particular stress has been given to the importance of pre-natal medical care and hygiene, of birth registration of detecting unlicensed midwives and instructing the licensed ones, of proper nutrition during childhood, and the necessity for correction of physical defects.

2nd. Infants and Pre-School Hygiene.

The child Health truck which has been in operation for several years has laid the foundations for permanent well baby conferences which are now being carried on in the various counties. To these conferences the mothers are invited to bring their children for examination and hygiene advice. Whenever possible, home visits are made by the nurses to instruct the mothers in the details of Infant Hygiene.

3rd. School Hygiene.

The nurses have assisted materially in the examination of the school children. Parents and school children authorities have been notified concerning the defects found in order that the family physician or dentist may be consulted concerning the correction of the defects. In some cases for those children whose parents are unable to pay for medical treatment, arrangements have been made, through the local medical profession, where by the corrective treatments may be secured free.

MALARIA CONTROL ACTIVITIES

Under the head of malaria control in this state a new department was made this year of three counties, Beaufort, Georgetown and Marion, partly financed by the state, partly by the county and partly by the International Health Board. Malaria control was stressed, but other activities of Public Health carried on in these counties.

Places having malaria infection were advised to use the following control measures, where expense was not too great, dusting the pond regularly every week with paris green mixed with road dust, introducing top minnows, if none were present, and cleaning the banks of grass vegetation so the minnows could find and destroy the mosquito larvae. Oiling was also employed. People were encouraged to take the Standard Treatment for malaria as recommended by the National Malaria Committee and approved by the U. S. Public Health Service and the State Board of Health. Screening was encouraged and studies were made to determine the effectiveness of partial screening as compared with no screening.

In addition to this work, new regulations were prepared by the State Board of Health governing the impounding of large bodies of water in this State which if carried out would reduce to a reasonable degree, a spread of malaria.

ORTHOPOEDIC CLINICS

One excellent piece of work done under the auspices of the State Board of Health this year was by Dr. W. A. Boyd, who gave gladly his time, free of charge, to the State in relieving of the children of South Carolina. He promised that he would, if the legislature would appropriate \$5,000, restore 100 crippled children to a normal condition. He kept his promise and now can show these little children restored, so that they can enjoy the delight of childhood and no longer be set apart from their playmates on account of their crippled condition.

HYGIENIC LABORATORIES

The report of the hygienic laboratory shows increase in work over the past year. Especially is this true of the treatment of rabies. There has been a marked increase among animals in this state, and 1,063 persons have been treated.

HOTEL INSPECTION

Mr. J. H. Woodward, the State Inspector of Hotel and Restaurants, has visited each and every hotel and restaurant in the State and the traveling public appreciates his work in the betterment of conditions in the hotels and restaurants of South Carolina.

SANITARY ENGINEERING

Mr. E. L. Filby, the sanitary engineer, has done most excellent work in South Carolina.

EPIDEMIOLOGICAL ACTIVITIES

Dr. A. H. Halden, State Epidemiologist, has visited numerous places throughout the State in the interest of controlling communicable diseases. Many institutions have been inspected by him and better hygienic conditions secured through his efforts.

VITAL STATISTICS

The vital statistics of this State for 1924, show that there were for the first ten months an increase of deaths and births reported, the death rate is 12.9, and the birth rate 25.8.

Tuberculosis continues to show a lessening death rate in South Carolina, as does also diptheria.

Typhoid fever shows an increase this year. This is believed to have been due to two causes. First, an increase in the use of bathing pools throughout the State; and second, to heavy rains which washed into open wells and springs, contaminating them.

Three main sources of death rate were diseases of circulation, diseases of the kidney and intestinal diseases.

MENTAL HYGIENE

The department of mental hygiene was established in 1924. Dr. J. M. Beeler was placed in charge. The work is two-fold; educational and clinical. The educational part of the department consisted of talks on mental hygiene to various societies, social agencies, civic organizations, senior classes in hospitals and various groups interested in this work.

The clinical side of the department has gradually developed. During 1924, clinics were established in Greenville, Spartanburg, Columbia and Anderson.

The clinics have been used by local physicians for diagnosis of nervous and mental diseases.

The clinics are also used by local social agencies.

The fullest cooperation has been given those in charge of the clinics by the medical profession, the Health Department and the various organizations they have served.

ACTIVITIES ON THE CARE AND PREVENTION OF TUBERCULOSIS

A complete report of the work done by South Carolina Tuberculosis Association may be secured at headquarters, 209 Liberty Bank Building Columbia, S. C.

This is a volunteer association, supported entirely by Christmas Seals and memberships. The program last year was developed, mainly, under the division:

I. General education of the public on the causes, prevention and cure of Tuberculosis, through talks, moving pictures, slides, literature, posters and exhibits.

II. Organizations of local associations to carry on intensive county programs. There are now nine associations employing tuberculosis workers and three without.

III. A clinic for counties having no associations for the purpose of locating and getting cases under medical supervision. In the last ten months through this service, 3,271 persons who had been in contact with the disease or who had symptoms were examined—257 were diagnosed as actively tuberculosis, 220 were suspicious. The majority had never consulted a physician and were referred to doctors. Many were put on the sanatorium waiting list and a small percentage have since been admitted.

IV. An effort to build resistance in school children through a system of health habit formation known as the Modern Health Crusade. This movement, endorsed by the National Educational Association and the American Medical Association is a plan for the developing of right health habits by systematic inspection and checking on the daily observance of certain fundamental health principles. Since September 18,

000 children have been enrolled and interest held by the State distributor for a teacher's manuel, "Health Training in Schools", used last year by more han two hundred teachers.

V. Work for adequate sanatorium space by assisting the State Board of Health secure appropriations for State Park; by increasing facilities for treatment in the four county sanatoria through local associations; and by promoting movements for county and district sanatoria.

The Association basing its 1925 program on the belief that "the next step in Tuberculosis work is the first step, viz, to find the cases," Hence a more determined effort to locate cases through an increased clinic service.

RECOMMENDATIONS

The committee on Health and Public Instruction do recommend the House of Delegates as indorsing the following:

I. The establishment of a short Tuberculosis

Institute at the State Sanatorium for the purpose of giving the doctors who desire special work on this disease an opportunity to secure this without the expense of taking the Trudeau course at Saranac Lake.

II. The holding of State wide Tuberculosis clinics, the holding of three or four day clinics in the county seats. This would entail the employment of an extra clinician as the staff at the State Hospital is too limited to carry on this work along with the regular work at the State Sanatorium.

III. Of the effort to bring whole time county health service to every county in South Carolina.

COMMITTEE,

Dr. R. G. Beachley, Chairman,
Dr. Ernest Cooper,
Dr. T. D. Dotterer,
Dr. C. F. Williams.

SOCIETY REPORTS

SPARTANBURG

August 28, 1925

The Spartanburg County Medical Society, wishing to express the sorrow that we feel in the death of our brother, J. E. Edwards, and the esteem in which he was held, deem it proper that we place on record the following resolutions:

Doctor Edwards was primarily interested in our Society, having at one time served as its President and at all times willing to render his services for the good of the Society. He was eager to help in any movement for the progress and betterment of the medical fraternity.

He was personally devoted to many civic developments, and the community felt his influence along the lines of health, in his milk stations for needy children, and in the public parks.

In our regard, Doctor Edwards was the originator and champion of the idea of founding a General Hospital for the people of Spartanburg County. We feel that it was due to his tireless energy and persevering effort that the Spartanburg General Hospital is here today.

His private and public conduct was governed by a desire to promote the best interests of the community in which he lived and to better the working facilities of his fellow physicians.

This Society wishes to publish their appreciation of a man whose vision was always forward and for something better; a big man, whose motives were unselfish and directed for the public.

Therefore, be it resolved:

First; That the Spartanburg County Medical Society joins with Mrs. Edwards and family in the common sorrow of a great loss to the medical profession and our community in the death of Dr. J. E. Edwards;

Second; That we extend sincere sympathy to the bereaved wife and family in their hour of great grief;

Third; That the above resolutions and statements of our feeling be ordered written in the minutes of our Society, a copy be sent to the bereaved family as a tribute of our respect and affection, and that a copy be sent to the Journal of the South Carolina Medical Association and to each of the local papers.

(Signed) Cecil Rigby, Chairman.
W. B. Lyles,
W. S. Zimmerman.

The above resolutions were unanimously adopted by the Spartanburg County Medical Society, August 28, 1925.

Martin Crook, Secretary.

SEVENTH DISTRICT MEETS

The annual meeting of The Seventh District Medical Association was held at Sumter, on Thursday, September 10th., at 11:00 A. M., in the Junior High School Building. It was generally considered one of the very best meetings yet held by this association. The dinner, served by the ladies of the Presbyterian Church, was a feature of the day. The members were pleased to have as their guests fellow-physicians from Florence, Charleston, Columbia, Greenville, Charlotte, and Atlanta.

The 1926 meeting will be held at Kingstree, the second Thursday in September.

The election of officers resulted as follows: President, Dr. H. M. Stuckey, Sumter; Vice-Presidents: From Clarendon County, Dr. L. C. Stukes, of Summerton; Georgetown County, Dr. W. M. Gaillard, Georgetown; Lee County, Dr. Harvey McLure, Bishopville; Sumter County, Dr. C. J. Lemon, Sumter; and Williamsburg County, Dr. R. M. Sease, Kingstree. The Secretary-Treasurer, Dr. Carl B. Epps, of Sumter, had been previously elected for a period of three years.

The official program, as carried out, was as follows:

Invocation by Rev. Thomas G. Herbert, Trinity Methodist Church.

Papers by invited guests.

1. "Important Matters Pertaining to the State Association," informal talk by Dr. R. S. Cathcart, President South Carolina Medical Association, Charleston, S. C.

2. "The Classification of the Blood Pressures," by Dr. Stewart R. Roberts, Atlanta, Ga.

3. "A Further Study of the Removal of Ureteral Stone by Cystoscopic Manipulation", presented by Drs. Hamilton McKay and Lester C. Todd, of Charlotte, N. C., in the absence of Dr. A. J. Crowell, of Charlotte.

4. "Foreign Bodies of the Air and Food

Passages", illustrated with slides, by Dr. E. W. Carpenter, of Greenville, S. C.

5. "Some Unusual Surgical Experiences," by Dr. Julius H. Taylor, Columbia, S. C.

6. "Acute Poliomyelitis; With Case Reports," by Dr. R. M. Pollitzer, Greenville, S. C.

Papers by members:

7. "Lye; A Plea For Legislation," by Dr. A. H. Brown, R. 2, Oswego, S. C.

8. "Post-operative Demonstration of a Case of Spina Bifida", by Dr. W. S. Burgess, Sumter, S. C.

Carl B. Epps, M. D., Secretary-Treasurer.

NEWS ITEMS

GOVERNOR NAMES DELEGATES TO PUBLIC HEALTH CONVENTION

Ten South Carolinians have been named by Gov. Thomas G. McLeod as the State's representatives to the annual meeting of the American Public Health association in St. Louis, October 19-22.

The appointments were made at the request of Gov. Sam A. Baker of Missouri, who has been advised of the governor's action.

The delegates are:

Dr. James A. Hayne, state health officer, Columbia; Dr. L. A. Riser, director county health work, Columbia; Miss Ada Taylor Graham, director bureau of child hygiene, Columbia; Dr. R. S. Cathcart, president South Carolina Medical association, Charleston; Dr. Leon Banov, county health officer, Charleston; Dr. W. Atmar Smith, city board of health, Charleston; Dr. Ralph G. Beachley, president board South Carolina Public Health association, Spartanburg; Dr. Carroll B. Earle, president

city board of health, Greenville; Dr. Edgar A. Hines, secretary state medical association, Seneca; Dr. William Egleston, state board of health, Hartsville.

PHYSIOTHERAPEUTIC CONVENTION

Physicians are invited to attend the Fourth Annual Physiotherapeutic Convention to be held at the Drake Hotel, Chicago, October 12 to 16, 1925. Papers will be read and discussed by leading physicians of national and international reputation in this field. For particulars see page program in this issue. Demonstrations and exhibits of the latest apparatus and methods employed in physiotherapy will be given. Physicians who are in good standing with their State Medical Association and can give evidence of that fact are invited. Reservations may be made and programs obtained by addressing the Educational Department of H. G. Fischer & Compay, 2335 Wabansia Ave., Chicago, Illinois.

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Chicago, Ill.
Elkin P. Cumberbatch,
M. A., M. B., M. R. C. P.
London, England
Leo C. Donnelly, M. D.
Detroit, Mich.
Emile C. DuVal, M. D.
Chicago, Ill.
Raymond F. Elmer, M. D.
Chicago, Ill.
J. C. Elson, M. D.
Madison, Wis.
F. H. Ewerhardt, M. D.
St. Louis, Mo.
George W. Funck, M. D.
Chicago, Ill.
J. U. Giesy, M. D.
Salt Lake City, Utah
E. C. Henry, M. D.
Omaha, Neb.
A. R. HOLLender, M. D.
Chicago, Ill.
Wm. E. Howell, M. D.
Chicago, Ill.
Arthur E. Joslyn, M. D.
Lynn, Mass.
D. Frank Knotts, M. D.
Chicago, Ill.

wax figures and models will be used, and in some instances live models will be employed for this purpose.

The Convention will be subdivided into the following sections:

Eye, Ear, Nose and Throat.	Malignancies.
Gynecology and Urology.	Neurology.
O thopedics and Surgery.	Internal Medicine and Pediatrics.
Dermatology including	Industrial Physiotherapy.
	Miscellaneous Practise.

Special rooms will be provided on the mezzanine floor for smaller groups attending clinics and round table discussions, and for demonstrations to follow up interesting talks delivered from the platform. There will also be clinics at Chicago hospitals.

Admission will be by card only. A. M. A. rules will apply throughout; either an A. M. A. fellowship card or its equivalent will ensure admission. Arrangements for accommodations, etc., will be attended to on request by the Educational Department of H. G. Fischer & Company.

A record attendance is anticipated. There were over seven hundred physicians and surgeons present at last year's Convention and this year's record will be much higher. Those interested are advised to make plans now and

Partial List of Speakers

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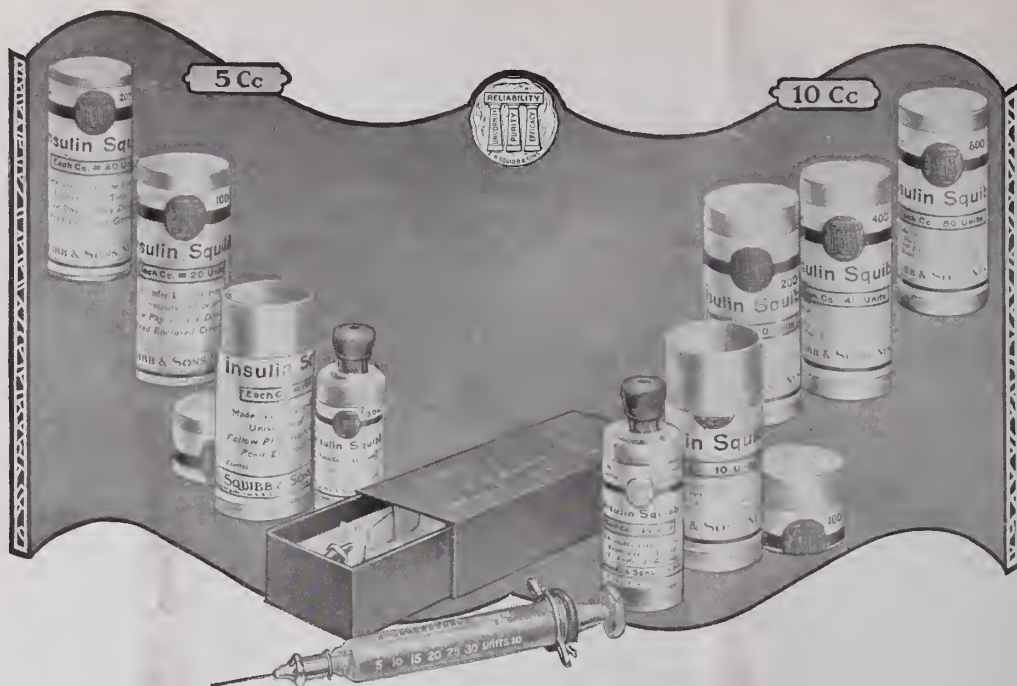
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EDITORIAL

INFANT MORTALITY RATE IN SOUTH CAROLINA FALLS AT LAST

The bureau of vital statistics reports for the first time in history a marked lowering of the infant mortality rate from 114.5 to 94.4 per thousand births and notwithstanding an increase of births. It may be a coincidence but it will be recalled that the secretary in his report to the House of Delegates at the Spartanburg meeting urged that the major project of the association for the ensuing year might well be the lowering of the infant and maternal mortality rate than the highest of any state in the union. The State Health Department, especially the bureau of child hygiene has done extraordinary work but this is a colossal undertaking which can only be accomplished by the unanimous support of every doctor in the state.

STATE SECRETARIES CONFERENCE CHICAGO

The annual conference of Secretaries and Journal Editors will be held in Chicago, November 20th, 21st. The Secretary of the South Carolina Medical Association has missed only one of these meetings in the fifteen years he has held office. On two occasions he presided over the conference. At Los Angeles in 1911 and Chicago 1924.

His predecessor, Dr. Walter Cheyne of Sumter was the first president of this body, so that South Carolina has been signally recognized in an official way. One of the important matters to come up at the Chicago conference will be The Periodic Health Examination.

Dr. W. B. Cannon of Charleston who presented such an excellent paper on this subject at the Spartanburg meeting has been invited to participate in a special meeting called by

the council on Health and Public Instruction at the same time as that of the Secretaries meeting. Dr. Cannon's contribution attracted the attention of the American Medical Association Council and hence the further credit to South Carolina.

STATE BOARD OF HEALTH AND PERIODIC HEALTH EXAMINATIONS

At the meeting of the Executive Committee of the State Board of Health held in Columbia October 8th it was decided to purchase the new manual of Instructions published by the A. M. A. as a guide to physicians in sufficient quantities to present every doctor in the state a copy.

This book will enable the family physicians to become thoroughly familiar with the necessary equipment and details for conducting an up-to-date Health Examination.

South Carolina already a pioneer in this field and so recognized throughout the country has a great opportunity to lower the death rate of the man and woman bearing the heat and burden of the day. It is increasing from lack of proper attention on the part of the public and the medical profession. Dr. James A. Hayne our efficient State Health Officer coined a slogan in his presidential address before the State and Territorial Health officers conference at Toronto in June that is being widely quoted viz; "Have a health examination along with the new suit on your birthday."

OCONEE WOMAN'S AUXILIARY ADMITTED TO STATE FEDERATION OF WOMEN'S CLUBS

The Woman's Auxiliary of Oconee deserves credit for a forward step in securing admission to the Federated Clubs of the State. Others should take similar steps. One of the

main ideas is to promote social welfare and place the medical profession in the proper light before the public. The able president of the Federation of Women's clubs is the wife of a physician and several of the high officers are wives or daughters of physicians.

PRESIDENT CATHCART HONOR GUEST AT BRILLIANT BANQUET

One of the largest and most brilliant meetings held by the Greenville County Medical Society in its history was that in honor of Dr. R. S. Cathcart of Charleston, President of the South Carolina Medical Association, Monday evening, October 5th. Dr. Cathcart presented a scientific paper on "The Progress of Surgery", which was received with keen attention. He also spoke of the great work being carried on by the State Medical Association in its various departments. President Cathcart is inspiring confidence in the onward march of the South Carolina Medical Association wherever he goes and every member of the Association should support him and the other officers for the coming year. The fact is that organized medicine has before it triumphs of undreamed of magnitude. Full cooperation is all that is needed to realize this in the near future.

SMALLER COUNTIES WAKE UP

Indications are that the smaller county medical societies are eager for scientific improvement. Oconee, Laurens, Chesterfield, Darlington, Lexington and others are enthused and doing fine work. With good roads everywhere in the State now the small county society can in a few minutes get together. The visiting guest can run over from the near by city. Patients for clinics can likewise be transported quickly so that no longer is there any excuse for not holding meetings.

ORIGINAL ARTICLES

A BRIEF CONSIDERATION OF PELVIC INFLAMMATORY DISEASE

By *W. B. Sparkman, M. D., Greenville, S. C.*

Unless a paper contains some matter which may be useful to some hearer it is a waste of somebody's time to read it. I trust that this paper, while it contains nothing essentially new, may be of some slight value to you in your daily rounds. I am quite sure that the adoption of some of the methods recorded here, if you have not already adopted them, will keep some of your patients out of the surgeon's hands and enable them to recuperate at home, thereby obviating the expense of a sojourn in the hospital.

I have chosen as my subject a condition which has existed "since the memory of man runneth not to the contrary", pelvic inflammatory disease. Hippocrates or at any rate, the ancient Greeks, knew about it and attempted to control it, if not directly, indirectly, by inserting a flea into the specifically infected male urethra. What success crowned his efforts I have never heard, but it is safe to affirm that, even if successful, his method was not adopted universally since we have the disease with us today and shall have until evolution takes us a few steps further.

The causes of pelvic inflammatory diseases are gonorrhea, post-partal, post-abortion, and post-operative infections; infections occurring in the course of such diseases as typhoid fever, scarlatina, small-pox, etc., tuberculous infection, and infection due to instrumentation. Of these the gonorrheal infections constitute a large majority. In a smaller number of cases the offending micro-organisms are the streptococcus, the staphylococcus, the bacillus coli, and the tubercle bacillus. In the post-partal and post-abortion cases the streptococcus is usually the cause, but instead we may find the staphylococcus, colon bacillus, gonococcus, or certain

forms of saprophytes. Infections following curettements or plastic work are usually not new ones but are the lighting up of old foci, usually gonorrheal salpingitides.

It is not necessary for the purpose at hand to go into detail as to the pathology of the trouble. Suffice it to say that the process is either acute or chronic, and that it may eventuate in one or more of the following conditions: Mild salpingitis, salpingitis with exudate, pyosalpinx, ovarian or tubo-ovarian abscess, acute diffuse peritonitis, pelvic cellulitis, or septic thrombosis. These various entities, as you know, show all grades of severity from a simple inflammation to pus formation and the patient may be affected with a combination of them. The essential thing to remember about the pathology is that the gonococcus invades the structures by direct extension upward along the mucous membrane of the cervix to the endometrium, thence to the tubes and so on. It shows only very little disposition to extend along serous surfaces and consequently a gonorrheal infection is usually limited to the pelvis. Any circumstance which favors an exacerbation of the gonorrheal inflammation, dilates the internal os, which is the natural barrier between the cervix and the endometrium, or by any means actually carries the infection into the uterus tends to produce the disease. In the other cases, that is, post-partal, post-abortion, post-operative, and those produced by instrumentation, the infection travels through the uterine wall by way of the lymphatics. That is why, for practical purposes, you may classify all pus tubes as gonorrheal in origin. True the extension of a non-specific infection may seal up the abdominal ostia of the tubes producing hydrosalpinx but that is a different pathologic process. It is with these cases of lymphangitis that we get sometimes a fulminating general peritonitis. Fortunately, however, this is rare. Infection of the sinuses of the uterus may take place and result in a thrombo-phlebitis leading to a bacteremia or pyemia. The difference in the method of spreading between

the gonococcus and the other micro-organisms has a direct bearing on the handling of a given case.

The chronic cases are those in which there is a residuum following the acute forms, presenting the same symptoms in milder degree, however, and such other symptoms as result from adhesions and pressure from masses.

The course of the disease will depend upon the same considerations that obtain in all infections, viz; the virulence of the infection, the condition of the patient, that is, whether she is pregnant, etc., and her vital resistance. Of course when the pelvic organs are congested for any reason the infection is more active than otherwise because the parts afford a better medium for the development and propagation of the micro-organisms.

The symptomatology is familiar to you all and need not be detailed here. A careful history throws a great deal of light on the diagnosis and a painstaking examination usually will delineate the trouble clearly. It is not always necessary to define accurately the process, that is, to say that the infection is confined to this or that part of the adnexa, except where there is pus formation, and then it should be determined whether it is feasible to drain per vaginam. It is important to differentiate between right-sided adnexal disease and appendicitis. In a great many instances it is almost impossible to do this, and in others it will be found that the two conditions are concomitant. In unmarried women of good morals and in married women who have not borne children right-sided pain is apt to be appendicitis.

In the treatment it is exceedingly important to be a good Episcopalian and do only those things we should do, leaving undone the things we should not do. Operation in the acute stage is absolutely contra-indicated regardless of the infection. There are many reasons for this. In the gonorrheal cases, with appropriate treatment, the micro-organisms lose their virility and the process will eventually become sterile. In all cases, operation opens up new avenues of infection and the danger of peritonitis is very great. Nature attempts to take care of the patient and will develop a certain degree of immunity which will make the risk safer at a later date. Again, when the parts are

congested and inflamed it is not possible to do as accurate work and a great deal of tissue may be sacrificed which might have been saved. This is an important consideration because the future happiness and well-being of the patient may depend upon it. A prime desideratum is the preservation of the menstrual function and this should not be interfered with if it can be avoided. As annoying as this function may be to women, when it is lost they feel that they are different. It is unnatural for them not to menstruate and their peace of mind is disturbed by its absence.

Put your patient to bed in Fowler's position, institute continuous proctoclysis of soda solution, 5 per cent is satisfactory, give her a liquid diet, and put ice-bags, or, if you prefer, hot-water bags, over the lower abdomen. Under no circumstances give a laxative, but secure a daily movement by a low enema. The magnesium sulphate, glycerin, and oil enema, two ounces of each, is a good one. Until the process has become chronic leave off douching. After the symptoms have subsided, a daily douche of a gallon of hot saline, 110 degrees, may hasten resolution somewhat. Usually it is not necessary to resort to opiates for the control of pain. The ice-bag will take care of that. Now for the best remedy we have in these cases. I am convinced of its efficacy from personal experience and from the experience of several other observers, notably Gellhorn, of St. Louis, who has utilized this method in many cases with most happy results. It is the injection of sterile milk into the gluteal muscles. I say sterile milk because it is universally available. Any sterile protein would do as well, be it cheese or what not. This treatment is based upon the fact, empirically at first, but later amply confirmed by laboratory investigation, that protein substances if introduced parenterally, that is, by subcutaneous, intramuscular, or intravenous injection, have the faculty of stimulating the cells of the body to greater activity, of activating the protoplasm. Quoting Gellhorn, who quotes a number of investigators along this line, we know many beneficial cell stimuli, fresh air, for example, sunlight, water in various forms of application, heat in moderate degrees, and other means of producing hyperemia, etc., but none of them

is as powerful, probably, as the parenteral administration of protein which exerts its influence upon all the cells of the body. In addition to this omniscellular effect, there is an even more marked impress made upon the cells which have been weakened or paralyzed by disease. This is, after all, not very surprising since we have learned from physiologic researches that any cell previously involved, let us say, in an inflammatory process, responds to stimuli of all kinds more readily than a normal cell. The affected cells are rescued from bondage, as it were; some of their normal vigor returns, and their natural means of defense become reassembled. They are now in a position to renew the struggle against the invading microbes which represent the vast majority of causes of disease. The protoplasm again develops phagocytic properties, the toxins are neutralized by a fresh production of anti-bodies and ferments, the local metabolism is intensified, and the pus is absorbed. Under favorable circumstances the infected organ or tissue may thus rid itself of its enemy and more or less normal conditions may be re-established.

All of this is the outgrowth of the use during the past thirty years of vaccines and sera in immunization and treatment, but whereas the basic principle had heretofore been that the organism in its resistance to disease and defense against bacterial invasion must be supported by essentially specific means, the protein therapy rests upon a non-specific basis. It is now definitely established that many infections can be cured by the introduction into the body of non-specific substances which, in themselves, have no relation whatever to the infection under treatment. However, it stands to reason that only those cells can take up the fight for existence with any prospect of success that have not been hopelessly and permanently damaged, and as a matter of fact, practical experience has shown that protein therapy gives a greater promise of cure the earlier in the disease the treatment is instituted.

There is a variable amount of reaction which follows the injection, observed in the general condition of the patient, at the site of the injection, and in the pelvic organs. The general reaction in most cases, consists of chills and more or less high fever; in others, merely a

slight rise of temperature with nausea, headache, and perspiration, or a vague malaise. Complete absence of the general response is rare. The rate of the pulse and respiration is but little affected, but there is always a transitory hyper-leucocytosis, usually up to twenty or twenty-five thousand. The reaction grows progressively less after succeeding injections. The focal reaction in the affected part evidences itself only now and then by increase of pain and swelling of short duration. At the site of injection there may be some redness, soreness, and swelling but nothing like as much as is experienced following mercury injections. Unless the milk enters a vein there is no danger of anaphylaxis.

The milk may be prepared by boiling in a water bath for ten minutes, or, if preferred, some commercial preparation such as lactogen or aolin, may be used. The initial dose is 5 c. c., occasionally less if the patient is very weak or the fever high or where special conditions which contra-indicate its use demand caution. If the temperature curve is a septic one the injection should be administered at the period of the defervescence of the fever. The interval between injections depends upon the severity of the reaction but is usually three to five days. It may be gauged by the decline of the hyper-leucocytosis but where one cannot get a count it is safe to be guided by the reaction. With the second injection the dose is increased to 10 c. c. which is the standard dose. In mild cases two doses will often suffice. In others more are required and may be used up to eight or ten or more. It is contra-indicated absolutely in cardiac decompensation, diabetes, and alcoholism. Peterson advises caution where there is a hyper-sensitiveness on the part of the patient such as serum-sickness, asthma, hay-fever, urticaria, and angio-neurotic edema, or where there is epilepsy or other grave nervous instability.

It must be remembered that protein therapy is valuable but not a cure-all and that care must be exercised in its use. It will not relieve all cases but in most of them if it does not absolutely obviate surgery by a restitution of diseased organs to normal it will localize the trouble and make the condition more amenable to surgery. Bear in mind that we should not

expect too much of any remedy. "For never yet hath anyone attained to such perfection but that time and place and use have brought addition to his knowledge or made correction or admonished him that he was ignorant of much which he had thought he knew or led him to reject what he had once esteemed of highest price."

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THE HISTORY OF UNCINARIASIS

By Hugh Smith, M. D., Greenville, S. C.

Fifteen years ago South Carolina was seriously handicapped physically and economically by an unseen, blood sucking, intestinal parasite. Its recognition and its subjugation furnish one of the most fascinating steps in medical progress. Our state has been practically freed from a scourge, the damage from which was incalculable. I wish to review briefly the history of the hookworm and to express my gratitude to the men who did more for the south than any political leaders have ever done. This symposium should be somewhat of a jubilee celebration for results already obtained. However, to prevent laxity among us, it is timely to again present the subject in a thorough manner.

It is thought by some authorities that a description of Hookworm Anemia is recognized in an old papyrus dating back to 1550 B. C. Hippocrates, 400 B. C., described a disease "that caused people to eat stones and earth, which caused intestinal disturbances, and, though it was not jaundice, gave people much the same color as did the latter disease." This is certainly a suspicious description and is commonly believed to have been Miner's Anemia,

so common through all centuries, and finally proven to be due to Hookworm.

In classical literature about the time of Christ are many references to the striking pallor of miners. It was even thought at that time that gold gave off an evil emanation which turned the greedy miners a golden color.

In 1789 Froelich found small, hair like worms in the intestines of foxes. He observed the membranous expansions of the tail of the males and called them hooks, therefrom the name of *Uncinaria* or Hookworms. This was a different species from the one harbored by man.

In 1838 Angelo Dubini, an Italian, while performing an autopsy on a peasant woman who had died of pneumonia, found a similar worm. Four years later he again noted them and then began a systematic search. Within a year he had found them present in 20 out of 100 bodies examined. He published his report in 1843 describing the Hookworm and giving it the name "*Ankylostoma Duodenale*." He did not attach any importance to them. However, this was the beginning. In 1853 Bilharz and in 1854 Griesenger connected them with the Chlorosis, then causing 25 per cent of all deaths in Egypt. In spite of great positiveness on the part of Griesenger, his work was scarcely noticed.

In 1866 Wucherer of Brazil demonstrated the same parasite in the intestines of patients who had died of Tropical Anemia. These findings were gradually verified by others.

Until 1877 the diagnosis was by demonstration of the worm. In this year some Italians, Grassi and two brothers named Perona, found the ova by microscopic examinations and later published their work, making the diagnosis a simple one.

During the construction of St. Gotthards Tunnel (?) in 1880, many Italian miners became seriously ill of anemia. The government became interested, and, within a short time, Miners' Anemia was proven due to Hookworm. Progress was then rapid. A year later, in 1881, Bozzolo succeeded in curing six cases with Thymol. By this time the symptoms, diagnosis, and treatment were known.

The next important finding was made by

Arthur Looss when he proved the dermal route of infection and made preventative measures available. This was in 1898.

The first case recognized in the U. S. was by Blickholm of St. Louis in 1893. This was in a miner from Westphalia and was evidently an ankylostoma.

In 1902 Charles W. Stiles described the *Necator Americanus*, differentiating it from the ankylostoma. He became an active worker in this field and, due partly to him and partly to Walter H. Page, whose interest he won, the Rockefeller Sanitary Commission was organized in 1909. To this Commission, financed by Mr. Rockefeller, the South owes a lasting gratitude. In spite of much criticism and fun making and even open antagonism, this Commission organized the State Boards of Health, and, with their cooperation, diagnosed and treated many thousand of cases. The results are familiar to all of us. We seldom see now the poorly nourished, winged scapulae, pot bellied children so familiar only a few years ago. With this work the sleeping South was awakened. Our physical and economic progress since then has been unparalleled in history.

DRINKING WATER WITH MEALS. A POTENTIAL AID TO DIGESTION

By George M. Niles, M. D. Atlanta, Ga.

Water, the cup that cheers but not inebriates, the universal solvent, has claimed attention from earliest antiquity. As a therapeutic agent it has proved most efficacious, and since Naaman, the Syrian, was healed of his leprosy by bathing in the river Jordan, even to the present moment, there has been no lack of earnest adherents to the various methods of hydrotherapy.

In this paper I desire to discuss the much misunderstood subject of drinking water with meals, for with a few exceptions, but scant attention has been accorded it by writers on digestive problems, who allude to it in a careless and perfunctory manner.

There is a wide spread idea (happily being now somewhat abandoned) that the habit of imbibing water or any other fluid as food is being taken is harmful to digestion; that it dilutes

and weakens the digestive juices, thereby interfering with the satisfactory functioning of the stomach and the orderly progress of digestion. The idea is by no means confined to the laity, for the medical profession almost unanimously advise strongly against the drinking of large amounts of water at meal time, and as a matter of routine prohibit the practice. I have now at hand the printed diet list of a prominent stomach specialist, bearing the injunction—"Do not take more than one and one-half glasses of fluid with any meal."

This wholesale indictment is radically wrong, it is based on erroneous physiologic conclusions, and perpetuated by tradition. As a shining instance, however, of one who would cast aside tradition, and utter words almost prophetic, let me quote the late Prof. Austin Flint, who, in a lecture delivered when the writer was a student years ago, said, "Gentlemen, *theoretically*, the ingestion of much water would dilute the gastric juice, and impair the digestion, but *practically* this does not seem to be the case."

The older works on physiology taught that the contents of the stomach were kept in a gentle rotary movement, so as to become more uniformly mixed; that each portion of the stomach contents was thoroughly "churned", as it were, so that the gastric juice would quickly and effectively permeate the whole mass; that the salivary digestion of starchy foods ceased as soon as the stomach was reached; and that the musculature of the stomach had a decided triturating power.

In recent years the subject has been investigated with great care by means of X-Rays, on the excised stomach, and by means of tam-bours introduced into that viscus to measure the pressure changes. These researches all unite in emphasizing one fundamental fact—mainly, that the fundic end of the stomach is not actively concerned in its movements but serves rather as a reservoir for retaining the bulk of the food, allowing the ptyalin more time to continue its work, and by the normal tone existing in the fundus, as well as in the whole organ, to gently force its contents down into the main body and pyloric region of the stomach, as is required by orderly digestive progress. Furthermore, the observations of

Cannon, Grutzner and Pavlov indicate that the successive portions of a meal as taken, instead of being speedily mixed, are arranged in definite strata. The food first taken lies next to the walls of the stomach, while the succeeding portions are arranged regularly in the interior in a concentric fashion. This is readily understood, when one recalls that the healthy stomach has never any empty space within; its cavity is only as large as its contents, so that the first portion of the food eaten entirely fills it, and successive portions, finding the wall layer occupied, are received into the interior. The ingestion of much liquid into an atonic stomach would, therefore, interfere somewhat with this stratification, but not so in a stomach of normal tone.

As to the order in which the different elements are evacuated from the stomach, it has been demonstrated by Cannon and Pavlov that, when liquid food alone is taken, it can be forced into the duodenum in a few minutes, and that when a mixed meal is taken, the liquid part is first expelled. Then the major part of the carbohydrates, then the major part of the proteins, and last the fats. Fats remain long in the stomach when taken alone, and when combined with other foodstuffs markedly delay their exit through the pylorus. On account of the stratification of the food as it occupies the stomach, that taken first has the position of advantage. If it is carbohydrate, it is promptly ejected into the intestine; but if it is protein or fat, the passage of the carbohydrate will be delayed. Water, though, finds a ready exit when taken at any stage of the meal.

There are a few conditions, nevertheless, in which much water with meals is contraindicated; In gastropnoia, on account of the weight of the water, which drags heavily on the already relaxed and inefficient gastric supports; in dilated or atonic stomachs—those where splashing sounds may be easily elicited, because there is not enough tone to the musculature to promptly evacuate the contents, and an excess of water, added to a meal would promote further atony and dilatation; in patients with weak hearts or uncompensated vascular lesions. Occasionally, where there is a marked tendency

to colic, or spasm of the pylorus, water should be drunk moderately with meals. I might mention also that copious draughts of icecold water gulped down during fatigue or profuse perspiration are both unhygienic and dangerous.

On the other hand I find that a large proportion of patients coming under my notice, who suffer from poor nutrition, constipation, intestinal toxemia, and numerous other states of disordered digestion, are those who drink no water with meals, or if at all, very sparingly.

Desiring some additional data on this interesting but neglected subject, several years ago I enlisted the aid of sixteen young men, sophomore medical students, who cheerfully agreed to submit for eight days to a series of experiments along this line.

These young men were of healthy physique, and, with one exception, reported daily evacuation of the bowels. Their ages ranged from twenty to thirty-three, their weights from 124 to 168 pounds. All had normal hearts, lungs, and kidneys, and their stomachs were of proper size and correct position. Each one was in the habit of drinking one or two—not more—glasses of water or fluids with each meal.

Eight of the young men were instructed to drink no water or other fluid with meals, and between meals to drink no more than demanded by actual thirst. The other eight were instructed to drink four glasses or one quart of water with each meal, and between meals to drink it or not as was desired.

These young men were carefully watched, regularly weighed, and each symptom recorded as it appeared. Omitting the detailed reports, I summarize the results as follows:

Of the eight who drank no water, all lost in weight—from 8 ounces to 2 pounds—with one exception. This exception remained at exactly the same weight, and it might be mentioned that this young man was holding a position as railway mail clerk in addition to his regular college work, and that he was so accustomed to irregular habits that shutting off his water did not affect him like the others. In addition to the loss of weight, each one complained of headache, and more or less constipation. Only their loyalty made them hold

out to the end of the term of days, and they all seemed glad to return to their accustomed allowance of water.

The eight who drank four glasses at each meal fared much better. One of them said that four glasses rather distended his stomach, but did not cause any marked discomfort. Of these eight, all gained weight—from 4 ounces to 2 1-2 pounds, except one whose weight remained the same. Not one reported headache, constipation, nor any form of digestive discomfort, and the single one who was constipated at the beginning of the experiment, found his bowels more regular in five days. Not one of the eight suffered a single qualm of indigestion.

The presence of an abundance of water during the busy period of digestion is as necessary in efficient "bodily housekeeping" as it is

to the housewife in her domestic housekeeping.

This error concerning the influence of water-drinking at meals is widespread and firmly entrenched, and should be combatted by every earnest physician.

As the first principle of hydrotherapy, therefore, each patient should be instructed to drink copious amounts of water with each meal, unless it is positively and logically contraindicated. With this injunction should be given an explanation of the reason, as well as an assurance that the water will not be harmful, otherwise some disciple of the ancient traditions against water will frighten the patient by dire prophesies of the danger that will ensue, so that the liberal amount will not be drunk, or, if it is, will be taken with a mental attitude of apprehension.

I trust that this paper will teach its lesson, and carry a worth-while-message.

A MEDICAL AND SURGICAL POT- POURRI FROM SOME OF THE CLINICS OF EUROPE

*By J. R. Young, M. D., and C. S. Breedin,
M. D., Anderson, S. C.*

Some two years ago the "Tri State Medical Association composed of Illinois, Iowa and Wisconsin Medical societies decided to conduct a European clinical tour. This society a few years before had conducted a very successful tour to some of the clinics of this country so the members were already sold on the idea. Soon after preparations for this tour began, it became apparent that physicians from all over the States and Canada were interested, and would like to join with the Tri State Society on this Medical pilgrimage.

Accordingly, the invitation to join this party was made nation wide. On May 18th when the tour began in Toronto it was announced that about 500 Doctors were present representing every state in the union, and many of the provinces of Canada.

The Interstate Postgraduate Assembly Tour was the official label.

As members of this party we want to present to you some gleanings from the various clinics together with some impressions that have crystalized during these weeks of the afterglow. The whole will indeed be a potpourri—a collection of statements brought together without connection. One definition of a potpourri is—"a collection of herbs preserved with salt." You are therefore given the privilege of taking with salt any of this hashed travelogue that is too fresh.

The plan followed in Toronto and Montreal as well as in the clinics abroad was (1) Dry clinics and short lectures in the morning. (2) Operations and other clinics in the afternoon and (3) Public meetings and social functions in the evenings.

In Toronto the program was carried out at the University of Toronto, which compares very favorably in size and equipment and other respects with many of our own universities. Some very interesting lectures and dry clinics were given. And one thing noted in these talks, which was also true in all the cities visited, none of them were too long. The lecturers and demonstrators were of course selected men and they all adhered strictly to time limit. Their papers were condensed and practical. For instance in a 25 minutes paper by

H. W. Wookey on Carcinoma of the mouth and face, the experience of the Surgical world in general and of the Toronto Surgeons in particular was summarized in definite statements like this—"Surgery can report 35 per cent seven year cures in cancer of lip when radical operation is done" "In cancer of tongue and of mouth and pharynx, surgery has failed and no better results follow the most mutilating removal of cancers in these regions. For such cancers Radium and deep X-Ray treatment should be used and surgery not attempted." When we remember that 500 Doctors representing every state in the U. S. were listening to this frank statement, who can doubt that the cause of Surgery will be helped by preventing some useless operations. In a paper by W. E. Gallie on "Residual Deformities following Fractures" this nugget of sound advice appeared—"The time to correct a deformity following fracture is when the deformity is discovered usually 6 or 8 weeks after fracture when splints are removed. At this time callus is soft and by open operation with a chisel and proper manipulation most any deformity can be corrected, whereas later when the callus becomes hard complete correction is difficult.

Two days were spent in Montreal where the program was thoroughly enjoyed. McGill University, Royal Victoria, and Montreal General Hospitals were visited and excellent operative work was seen. The late Sir William Osler was once on the staff of Montreal General Hospital and his name is yet greatly revered by the Medical men of Montreal. They have a very admirable Institutional Spirit at the Montreal General and Professor Meakins, Chief of Medical Staff spoke of the pride that the whole staff took in fostering this spirit. The essence of this spirit was service and the better the service they could render their patients the better they were fulfilling their function and keeping faith with their priceless heritage. We met many of the Medical men both of Toronto and Montreal, and it was our impression that they were worthy leaders of the Profession in Canada both as to ability and professional ideals.

Sailing from Montreal we arrived in London after a most pleasant 8 days trip, during

which we were getting acquainted, holding medical meetings, watching ice bergs and swapping yarns. Many of you have no doubt seen in the daily papers accounts of our opening meeting in London at Wigmore Hall where the Duke of York formally welcomed us to England. Mr. Neville Chamberlain, Minister of Health and Sir Humphry Rolleston, President Royal College of Physicians and Sir Jno. Bland Sutton, President Royal College Surgeons and Mr. A. B. Houghton, American Ambassador respectively endorsed this royal welcome. So cordially was this welcoming done that we felt, when it was over, that the only door in London which might not have the latch string out to us at all hours was possibly the door of Buckingham Palace. And to atone for this omission, His Majesty King George decided to have an outdoor birthday party during our stay. This was given June 3rd and some of us saw the whole Royal procession in that attractive military feat of Trooping the Colors. Besides our party and many thousand Londoners, Marshall Foch and other celebrities attended this birthday party of the king.

For three mornings excellent programs were carried out at Wigmore Hall. Short lectures by leading Physicians and surgeons of London were given. Time will not permit referring to these interesting lectures at length but one or two will be mentioned briefly. In a paper by Dr. Arthur F. Hurst of Guys Hospital on so called Pernicious Anemia he stated that synchronous with the early blood changes in this condition they had noticed at Guys that these patients usually had oral infection as evidenced by sore tongue or gums and also an absence of HCL together with subacute combined degeneration of cord. They believe at Guys that the achlor hydria is a causative factor and an important part of the treatment is the giving to such patients three times daily 2dr. of dilute HCL. in sweetened orange juice. Such large doses of HCL. sounded strange to us but the author stated that they were getting very encouraging results in these hopelessly chronic cases. Dr. Hurst stated that at Guys Hospital they called Pernicious Anemia Addison's Anemia on account of the pioneer work done by Addison in this grave blood disease.

Another most interesting paper was that of

Professor MacLean of St. Thomas Hospital, on Some Aspects of Renal Diseases. He stated that a renal function test which they had found was quite reliable as the more complicated tests was the simple urea concentration test given as follows—After a food and liquid fast of from 12 to 18 hours patient is given by mouth 5 grs. urea in water. Voided specimens are collected in one hour and two hours and if they contain a high percentage of urea as determined by the simple hypobronite test in the ureometer, then the function of the kidney is good, whereas if the urea output is low (1 per cent or less) the function is impaired.

Thirty-four hospitals staged afternoon clinics in their various departments and for three afternoons entertained small groups of twenty-five or thirty in a delightful way. Inspection of the Hospital, surgical and medical clinics, ward rounds, and following, an informal tea on the lawn or in lounge rooms was the usual order. The Hospitals themselves were interesting, none more so than St. Bartholomew with its 800 years of continuous history. When we reflect that this Hospital had been serving humanity nearly 400 years when Columbus discovered America we can begin to understand the feeling of pride which the staff has for this institution of such ancient and hallowed history. A like feeling of pride of the proper sort, is evident at Guys Hospital where the names of Sir Ashtley Cooper, Thomas Addison, Richard Bright and Jno. Hilton are held in reverent esteem. Nothing appealed to the popular mind more than the Florence Nightengale room seen at the St. Thomas Hospital situated on the banks of the Thames just opposite the house of parliament. Here after the close of the Crimean war she established the first training school for nurses. Many other of the London Hospitals are rich in history and tradition but you no doubt wish to hear something of the clinics we attended or how we were impressed by the work we saw.

All of the clinics we attended in London were surgical clinics. Surgical skill and technique are not national traits but personal attainments possible to acquire in any latitude. So far as surgical diagnosis and operative skill are concerned we saw nothing that sur-

passes the ability of many men in our own country. But there were observed in their hospitals some things which we might well imitate. The care which the surgeons and all the hospital attendants seemed to have for the comfort and feelings of their patients. This was evidenced by the avoidance of unnecessary exposure, the liberal use of blankets and woolen stockings, and the very careful and even gentle way in which patients were lifted from the stretchers to operating table. It appeared to us that in the Hospitals of England the comfort and welfare of the patient was of prime importance and we greatly admired the uniform way in which all the attendants seemed to adhere to this ideal.

To mention a few points of interest:

The giving of anesthetics in England, Scotland and Ireland is with few exceptions done by Doctors who are well trained anesthetists. They seem to have no inclination to watch the operation rather than the patient. Very little elaborate apparatus was to be seen. Quite often primary anesthesia was induced with chloroform and then ether vapor used. In several short operations we saw the old alcohol, chloroform and ether mixture used. In a good many cases oxygen was given with ether as needed. Gas is used occasionally but Ethylene not at all so far as we could discover.

We saw in the clinic of Mr. H. W. Carson at the Prince of Wales Hospital spinal anesthesia skilfully used. Local and regional anesthesia seemed to be little used.

For sterilization of the operating field a 5 percent picric acid sol. is used most commonly. In a good many clinics a 3 1-2 per cent Tr. iodine is used. The beautiful red mercurochrome solution we saw not at all.

A visitor from the United States is struck with the liberal supply of rubber goods in the various clinics of England, Scotland and Ireland. A pure gum rubber mattress on the operating table, rubber aprons on all the operating force, not to mention the rubber over shoes or boots or hip boots worn by many of the surgeons were usually to be seen. Sponges and packs are used economically and reused after coaking in warm saline. The wet field resulting makes the rubber accessories more use-

ful than ornamental. And when we remember that rubber is one of John Bulls favorite products and that John Bull is wont to "tread softly" on economic problems, as the English Surgeons are reputed to "tread softly" over precedent, we conclude that the rubber accessories in the operating rooms are quite consistent and withal quite practical.

If rubber is abundant adhesive is scarce or absent. The dressings on laparotomy wounds are held by scultitus binders.

The general impression which we formed after meeting and hearing many of the leading Physicians and Surgeons of London was that the average level of general culture or broad educational background in these men was above the average level that exists in our own country. That this should be true is not surprising when we reflect that their entire educational system is many hundred years older than ours, but age alone does not make for excellency in education. China is likewise older than America. In England, Scotland and Ireland Education has maintained a contact with Religion which probably does not exist so generally in this country. Who can doubt that the intimate mingling of the ideals of religion into the warp and woof of an educational system will result in raising the standard of excellency in the output of this system?

To offset this superiority, if it exists, this seems to be true that to rise from the rank of general practitioners in England to the class of Physicians or Surgeons is much more difficult than in our own country. The period of apprenticeship is long and arduous and the present tendency among general practitioners is to go in for State Medicine. The government pays such men from 300 to 500 pounds per year for their services to a given clientele. This practice is no doubt more popular in recent years on account of the strained economic conditions. The Professional men of England and of Continental Europe have felt most keenly the financial burdens of the war. But the courage with which they carry on and the cheerfulness with which they do such an enormous amount of work in the Charity Hospitals was an inspiration to us.

Our visit to Leeds, Liverpool, Manchester,

Belfast, Dublin, Glasgow and Edinburg will long be remembered. At all of these places excellent work was seen in Gynecology, General and Orthopedic surgery. No more popular clinic was visited than that of Sir Berkley Moynihan at Leeds. This master of surgical technique and operative dexterity was found in his own clinic to likewise be a most gracious host whose prime purpose was to please his guests.

At Heswell, some ten miles from Liverpool, where the Royal Liverpool County Hospital for Children is located on the banks of the beautiful Dee River opposite the hills of Wales, we were interested to note how eagerly the children received the visit of Sir Robert Jones and his able associate Mr. McMurray. At this ideally located and well equipped modern Orthopedic hospital Sir Robert Jones gave us a delightful afternoon program demonstrating his method of treating certain common deformities and fractures.

Another popular clinic in Liverpool was that of Professor Blair Bell in Gynecology.

In Manchester at the Royal Infirmary we saw a breast amputation by Mr. Jefferson which from the standpoint of technique or as an anatomical demonstration we have never seen surpassed. When asked as to his ultimate mortality in breast cancers said they could report only 20 per cent five year cures in cases where a doubly checked microscopic diagnosis was made.

No where was our reception more cordial than in Ireland. In both Belfast and Dublin excellent medical programs and delightful entertainments were provided us. At Belfast the clinic in Gynecology of Prof. R. T. Johnstone at the Royal Victoria Hospital was excellent.

In Dublin a small group of us attended an Orthopedic clinic at Stephens Hospital conducted by Mr. Wm. S. Houghton. At the close of this clinic he invited six of us to lunch at the Friendly Brothers St. Patrick Club where he and Professor T. E. Gordon very charmingly entertained us. Their favorite vintage of '95 was not more enjoyed than their delightfully sparkling wit. From these good men we learned something of the travail through which Ireland has passed in recent years. The as-

pirations of the Republican party as they have been groping towards Nationalism have clashed with the will of the Conservatives who have stood for fealty to the English Crown and bitter civil strife has been the result. Numerous scars of this warfare are yet to be seen in Dublin in the skeletons of fine old buildings that announces to the world the fearful cost of civil strife. Whatever may be the outcome of this "Irish Question" we venture to say that no group of men in the state will be found to be doing their bit more thoroughly and cheerfully than the Medical men whose labors are long and arduous and whose financial returns are exceedingly small.

After leaving Ireland we went by night boat to Scotland, spending several days at Glasgow and Edinburg. The Universities in Glasgow and Edinburg we had long heard of and were pleased to visit. At the opening meeting in Edinburg where the honorary degree of L. L. D. was to be conferred on C. H. Mayo and the usual welcoming address was to be made we saw in action a brand of college spirit that was new to us. It had in it something of the flavor of the vintage of '76. The students occupied the galleries of a large auditorium and as the robed dignitaries of the faculty together with Dr. Mayo and other guests marched down the aisle towards the platform the students sang a college ditty entitled "Horsey hold your tail up". From this and other numerous attentions which they showered on the speakers and audience we concluded that they were endeavoring to live up to a reputation because their varied interruptions seemed not to worry the professors a great deal. And too this might be a desirable atmosphere in which to raise doctors for it might be conducive to originality and the spirit of "to hell with the authorities". At any rate something in the air at Edinburg has produced great men in medicine for on its roll of honor are the names of Benjamin and Joseph Bell, Sir William Ferguson, Robert Liston, James Syme, Joseph Lister, Sir J. R. Fraser, Sir Sharpey Schaefer, not to mention Sir Harold Stiles and others who are famous in our own day.

On leaving Scotland for a weekend in London we had a wonderful day of sight seeing

through the lake country of England made famous by Coleridge, Southey and Wordsworth. Until one has seen this part of rural England and seen the skylark poised in mid air in her "privacy of golden light" and heard her "pour upon the world a flood of harmony" he has by no means exhausted the charm and beauty of nature.

We left London about 8:00 o'clock Monday morning June 22nd by special train for the channel port of Folkstone England where we boarded a vessel for Boulogne France landing about one o'clock. We were met by officials of the French Government and of the city of Boulogne and given a very cordial welcome. Lunch had been prepared and was spread on the large Customs Pier. We all had a big time, it being our initiation into French hospitality and all the things we heard about wine and champagne turned out to be true. When luncheon was well under way and the wine and champagne jets had been thrown wide open speech making began. When it comes to enthusiastic after dinner speeches I believe the Frenchmen take the honors. Now, of course, all of this was in French and most of us had a very elementary knowledge of the language, however every time one of the Frenchmen would lower his voice or mention the word France we Americans cheered lustily. After these festivities were over we boarded a special train that took us to Paris, arriving about 5:00 o'clock Monday afternoon. The Profession of Paris under the chairmanship of Prof. Theodore Tuffier ably assisted by Dr. T. de Martel as well as numerous other prominent members of the profession of Paris had prepared a very excellent and comprehensive program which began after the official welcome of the morning of Tuesday June 23rd at The Academy of Medicine. Prominent among those taking part in this official welcome were the President of the Academy of Medicine, President of Counsel of Ministers, the Consul general of the U. S., minister of Foreign Affairs, Director of Pasteur Institute, President of American Club, and numerous others. Clinics were arranged every morning and afternoon for the entire week. We were particularly interested in the bone work of Dujarier

and the work being carried on in the Curie Institute by Madam Curie and Dr. Regaud in radium and in Radiology by Dr. Roux-Berger and the work in Prof. Tuffiers Clinic. We found in Prof. Tuffiers Clinic they were doing considerable work with the X-Ray in treating fibroids of uterus and in order not to injure the ovaries the treatment was preceded by an abdominal section for the purpose of enveloping the ovaries in a lead lined aluminum capsule. The capsules are frequently left in place for several months while the patient is receiving irradiation for fibroids.

In Prof. Dujariers Clinic we were impressed by the general excellency of his work but could not help but marvel at the large metallic screws and plates that he used in certain fracture cases.

We were anxious to meet Madam Curie, so on Wednesday afternoon we visited the Curie Institute and there we had the pleasure of shaking hands with her, a very unassuming little old lady in black. We were shown all through the Institute by Dr. Regaud and they seemed to be not only well provided with Radium but with deep Therapy and X-Ray Equipment.

It was our great privilege to stand by the grave of the celebrated Louis Pasteur, it being just a few blocks from the Curie Institute. A magnificent chapel has been built for the sole purpose of sheltering his remains.

Fearing that this paper may be burdensome to you we have only touched a few of the outstanding features of our visit to France.

Our main tour ended in Paris on Saturday, June 27th. Several of us had been considering a stay of several weeks in Vienna, but there was so much unfavorable propaganda being spread that we went to Vienna with certain misgivings. Among other things we were told that the teaching arrangements were very poorly organized, that all the teaching was in German except in a few cases, and that their prices were exorbitant. We were also told that the celebrated Eiselberg had been extremely rude to several American Surgeons, all of which we found grossly untrue.

We left Paris Saturday morning June 27th for Berne, Switzerland where we had intend-

ed visiting the Goiter clinic of Dr. F. de Quervain. To our very great disappointment he was out of the city. However we had a very delightful stay of two days in Bern, also visited Lucerne and Interlaken, then to Zurich. From Zurich we went to the beautiful old city of Vienna nestling snugly mid the Carpatian and Alpine mountains on the banks of the Blue Danube. To say that we were thoroughly delighted with Vienna would be expressing it mildly. I believe they have well earned their reputation as the greatest city in the world for post graduate work. You can get any course you desire and the fees are very reasonable. Not only were we received cordially by the Professors but the people in all walks of life were cordial and considerate of us. Dujarier, the great bone surgeon of Paris told us to be sure and meet Prof. Eiselberg for he considered him the greatest surgeon in all of Central Europe. After the unkind things we had heard about this Professor we felt just a little hesitancy in looking him up, but we did get in touch with him and he received us with open arms. We found him a most charming gentleman as well as an able surgeon and he spent several hours showing us through Allgemeines Krankenhaus the large general hospital in which his clinic is located. He speaks very good English and instead of entertaining any hatred towards Americans he always put an arm around some of us or would hold us by the hand in talking to us. In this Clinic there was one outstanding feature that I recall at this time and that is the use of human oil intra-abdominally for the prevention of adhesions. We were especially interested in his fracture work and in a special fracture frame developed in his clinic. The bath house was another interesting feature. The treatment of certain skin diseases, intractable ulcers, severe burns, suppurating wounds, intestinal fistulae was carried out by continuous baths. In this Clinic there is a separate building equipped exclusively for treatment by baths. These tubs are provided with means for lowering and raising the patient for any special attention, and there are various temperature controls and the water is flowing in and out constantly. We saw one patient that had been in a continuous bath for nearly a year.

We observed in nearly all of these clinics of Vienna that they lean strongly towards various physio-therapy proceedings. Our work was concerned principally in Surgical pathology which we took under two of the worlds greatest Pathologists—Professor Jacob Erdheim and Professor Theodore Bauer. Professor Erdheims clinic was in German but since all of the technical terms are practically the same in any language we were able to follow him without much trouble. Professor Bauers work was in English and we feel that we were amply repaid for our time and money spent in his clinic. He had an average of 30 post mortems every day and at every class meeting we had all of his material before us. It might be of interest to know that when they do a post-mortem about the only thing left untouched are the eyebrows. For instance, most of the cases instead of the main post-mortem incision stopping in the supra-sternal notch it is carried to the symphysis of the chin—the skin reflected and the tongue and tonsils, larynx esophagus and trachea all brought out together with all of the organs of chest and abdomen, together with the external genitalia. I recall to mind one very unusual case at Professor Bauers clinic. It was that of a young woman 35 years old with history of frequent attacks of vomiting during childhood. She was brought to the surgical clinic of Dr. Hans Lorenz with symptoms of pyloric obstruction. The abdomen was opened in mid line above umbilicus, there presented through the esophageal opening in the diaphragm a fibro-myoma about the size of the average fist. This tumor had its origin in the posterior wall of the Mediastinum. He had no trouble in freeing it and ligating the pedicle. The patient was returned to her bed in poor condition and died in a few days. At post mortem this patient was found to have a chronic dilatation of the esophagus of such enormous proportion that the entire left chest was completely filled with the dilated esophagus, the lung being flattened out to a mere wafer. The conclusions were that this patient had this fibroid from early childhood obstructing the esophagus near the stomach and therefore the esophagus continued to dilate to the enormous size found at autopsy.

There were a number of gall bladders shown to us and reported to be perfectly normal although they contained stones.

The Pathologists of Vienna hold very strong views regarding the danger of nicotine to the human economy. They believe that nicotine is more responsible for atheroma and disease of coronary arteries than all other toxins and infections combined.

Time will not permit the mention of numerous other interesting features of our stay in Vienna. However, I must mention the clinic of Professor Finsterer, his work in gastro-intestinal surgery under splanchnic anesthesia was of very high order, although in some things a little radical for us. He is nevertheless a very skilful operator and his results seem to be gratifying. Professor Finsterer does 2-3 and frequently 3-4 resection of the stomach in all cases of gastric and duodenal ulcers, even in acute perforating duodenal ulcers he does this radical operation completing it with the Billroth two method. The object of course in removing so much of the stomach being to reduce the formation of H. C. L. which seems to hinder healing.

One morning we saw him do a complete resection of the stomach and it was gratifying to see this patient smile 4 days later. As mentioned previously all of this work is done under splanchnic anesthesia.

Some of you are familiar with the different methods of Splanchnic anesthesia. The method used by Professor Finsterer and described in his text book on anesthesia is the anterior method. His patients are brought to the operating room well narcotized with morphine and after a thorough field block of the epigastrium the abdomen is opened. He advises that gas be then given but in his own clinics he does not use gas for the good reason that they do not have it. With his ungloved left hand in the abdomen above the stomach he palpates the abdominal aorta and vena cava and with the index finger the aorta and Vena Cava are separated laterally. A long specially devised needle is then guided along the dorsal and radial side of this index finger until it impinges on the posterior peritoneum between the two large vessels. If no blood comes out of the needle, with an or-

dinary luer syringe from 60 to 75cc of a 1 per cent novocaine sol. is then injected and in a very few minutes the most complete analgesia follows.

In the hands of Professor Finsterer this is certainly an ideal form of anesthesia for major abdominal work. We saw him use it repeatedly for very radical operations requiring from two to four hours for their performance. And we watched these patients for days and were impressed with the smoothness of their convalescence. They were frequently up on the 5th day. He claims that lung complications have practically disappeared since he began using this form of anesthesia.

In passing time will only permit me to mention the splendid service rendered by the American Medical Association of Vienna. They have at least one Secretary on duty all day. They have spacious club rooms for reading and writing, a fairly good library and the those in charge are at all times glad to help you in any way possible.

If you will bear with me, there is just one matter I wish to call to your attention. Professor Eiselberg very feelingly expressed his hurt over the fact that since the war Austrian and German Surgeons had been barred from fellowship in the International Congress of Surgeons and he expressed the hope that we would use our influence in having them restored to fellowship. We then and there decided that in view of the very cordial treatment received by us at the hands of the Austrian Surgeons we would do our bit in their behalf. I believe it is the sense of all scientific men that science should be international, should know no boundaries should not be hampered by racial enmities, or hatred or prejudice or political intrigues. There should be a free and open commingling of ideas—surely this should apply to the science of all Sciences—that concerned in the Preservation and Prolongation of human life. I earnestly hope that this society will go on record as favoring restoring to fellowship in the International Surgical Congress the surgeons of Austria and Germany.

In bringing this Travelogue to a welcome end you will allow us to say in conclusion that in our judgment the time and money spent in

visiting the clinics of Europe is quite worth while.

The biggest gain is probably not the accumulation of medical facts to add to your stock of knowledge, but is that broader glimpse which one gets of the Republic of Medicine that knows no Geographical boundaries.

DR. NORMAN BRUCE EDGERTON AN APPRECIATION

In this busy world of today where competition is so keen, where living is so intense, and where intimate friendship is rare, we often fail to appreciate many of the finer things in life, especially as may be exemplified in the life and character of many with whom we are in daily contact. While this may be true generally, the writer feels that he expresses the feelings of the members of the Columbia Medical Society, when he says, that never in the history of the Society have they had a member whose worth was more universally appreciated than "Red" Edgerton's. This appreciation was not confined to his professional ability, which we all acknowledged as of the type of a leader; nor to his sportsmanlike attitude towards life, which was known and acknowledged by all to be of the finer type; nor to his loyalty to the church, the city, the state and her institutions—it is not to any one of those many qualities that we turn our thoughts in this appreciation, but to the unusual circumstance that one of our members had all of these qualities developed to the highest degree reminds us more keenly of the great loss the Columbia Medical Society has suffered in the death of "Red" Edgerton.

Norman Bruce Edgerton was born in Fremont, North Carolina, June 11, 1887. He received his early education in Newborn, North Carolina. When he was ready for college he had obtained a scholarship to both the University of North Carolina and to Davidson College and it was a question as to which school he would attend. At that time, however, it was thought by both "Red" and his mother that he might study for the Ministry; for that reason he went to Davidson College. He graduated from Davidson in 1909 with a degree of B. S. A study of his record at Davidson College casts much light on all of his after life. In college "Red" was entirely self-supporting. Every line of work or activity possible for a student to undertake in order to make money to pay his way through college, "Red" availed himself of. To enter college a Freshman, without money, without friends, working at odd jobs, waiting on the table for his board and to graduate in four years with \$300.00 clear money, President of the Stu-

dent Body, Captain of the Football Team, and voted the most popular man in College, is a record that anyone would envy.

After completing his course at Davidson, Dr. Edgerton entered the South Carolina Medical College of Charleston from which institution he was graduated in 1912. He was elected to the Alpha Kappa Medical Fraternity and upon graduating as an honor man was given an appointment in the Roper Hospital. While in Charleston, he continued his athletic activities. He coached Football at the Charleston College and Porter Military Academy. During the summer months he traveled over the state in the interest of the College for Women in Columbia.

In the Fall of 1912 he was elected head coach of the Football Team of the University of South Carolina, giving the University that year its most successful team in many years. The following year 1913 he located permanently in Columbia to practice medicine, at the same time continuing as a coach at the University which position he held four years. June 1st, 1915, he was married to Miss Kathryn Moss Salley of Orangeburg, South Carolina. From 1912 to 1915, Dr. Edgerton made several trips North taking Post-Graduate work. In 1915 however he gave up his practice temporarily in Columbia and went to New York where he specialized in Urology. From that time until his death his practice was confined to this branch of medicine.

During the war a venereal clinic was organized in Columbia and some months after Dr. Edgerton became associated with it. He devoted for five years much of his time and labor to this clinic. The same hard, fast rules of faithfulness to duty and thoroughness was manifested in this work at the clinic (which was more or less charity) as was manifested in all of his other work. The clinic in Columbia under Dr. Edgerton was one of the most successful in the country.

Dr. Edgerton was a self-made man, the type of self-made man whose whole life from the very beginning was a hard struggle against odds, that is characterized by many of the leaders in America, past and present, and which has made the expression "self-made man" peculiarly American. His success was ever through the door marked "Push" and not through the door marked "Pull". To him there was nothing impossible or to be shunned that could be attained by hard work and intelligent persistence. It was by this very readiness to work and his unusual capability that he built up a large Urological practice in this city and at the time of his death was doing a great deal of Urological surgery. He had become one of the recognized leaders in this branch of medicine not only in South Carolina but one of the leading members

of the American Urological Association, which meetings he quite frequently attended. Dr. Edgerton was the author of numerous articles on Urological subjects, many of which are valuable contributions to this special line of medicine. He was one of the first physicians of the country to combine an X-Ray and Cystoscopic table for Urological Work and his office work ranked equal or better on account of this efficiency than any Urological work the writer has seen anywhere in the country. If he had been allowed to live the usual span of life, there is no telling to what farther degree he would have contributed to the advancement of science in his particular line of medicine. A letter from Dr. Cabot of Boston (under whom "Red" studied at one time) was received at the time of Red's death saying that "Red" had one of the most brilliant minds with which Dr. Cabot had ever come in contact. Dr. Edgerton was a member of the Columbia Medical Society, Seventh District Medical Association, Tri-State Medical Association, Southern Medical Society, Columbia Medical Club and American Urological Association. He was a Director in the Columbia Kiwanis Club and a member of Ridgewood and Lakeview Clubs. He became a Shriner in April 1925 and was a member of Omar Temple. Recently he received membership in the Theta Delta Chi Fraternity. Davidson Chapter, an honorary Society.

Found in "Red's" pocketbook after his death were two poems so characteristic of the man—one typical of the "Red" we all knew and loved, entitled "Pep."

"PEP"

The spirit that helps when another's down,
That knows how to scatter the blackest frown,
That loves his neighbor and loves his town—
That's Pep!

To say "I Will," for you know you can—
That's Pep!

To look for the best in every man—
That's Pep!

To meet each thundering knockout blow,
And come back with a smile because you know
You'll get the best of the whole darned show—
That's Pep!

The second poem shows a greater and a deeper side that few were given the privilege of knowing but left to us surely as a talisman and a goal to follow:

"THE SURGEON"

My sense is weary of the smell of drugs,
The moan of human pain;
But let me turn away and dream the world
Is clean, and foul disease
A figment of the brain!

Let me forget the folly and the sin
That bring men to my door;
The fear of life, the cruel dread of death,
The sickness of the soul
That haunts men evermore!

Forget the cry of stricken motherhood
That lingers in my ears;
The futile efforts of my hand to save
Beloved ones from death,
And after that the tears!

I crave to lock my office door and break
 The bottles on the stand
 And loose forever from its clinging hold
 Upon my garment's hem
 The eager, seeking hand,

And then go wandering in the fields of life,
 The joyous ones to see;
 Touch hands with swift, abounding health,
 That knows no note to sing
 Save that of victory.

But hark! Bring back the ether cup, the drugs,
 The musty books, the knife;
 The weak and ailing ones are calling me,

No rest, no holiday—
 The battle is for life!

High priest of death and life, I stand to serve
 The sacrament of pain;
 I nerve my arm and whet my blade and pray
 The unseen God: "Let not
 The service be in vain!"

—Francis M'Kinnon Morton.

J. Richard Allison, M. D.,

Wm. R. Barron, M. D.,

F. M. Routh, M. D.,

Committee for the Columbia Medical Society.

SOCIETY REPORTS

The Darlington County Medical Society held its third quarterly meeting at the residence of Dr. W. A. Carrigan in Society Hill on the evening of September 22nd with thirteen members present.

The minutes of the last meeting were read and approved.

Action on The Gorgas Memorial Fund was deferred until after the next meeting of the South Carolina Medical Association.

The subject for discussion, Pneumonia, was very ably presented by Dr. Wm. Egleston, of Hartsville. He laid special stress on the virulence of the influenza type of pneumonia and also stated that most pneumonias are of a more severe type than they were twenty years ago. Following Dr. Egleston's discourse the subject was briefly discussed by Drs. Hill, J. M. Willcox, Edwards and Byerly.

Dr. E. H. King's application for membership in the Society was received and referred to the

board of Censors.

The next meeting will be held on the second Tuesday of December, in Hartsville.

The meeting adjourned.

Julian T. Coggeshall, Secretary.

CHESTERFIELD COUNTY

The Chesterfield County Medical Society has thirteen members in good standing and has a good attendance at each monthly program, good eats, etc.

The last meeting, the second Tuesday in September was held at Teal's Mill, at which time the society was entertained by Drs. D. T. Teal and R. L. Gardner of Chesterfield with a chicken stew. A good paper on Cardio Vascular and Renal Disease was read by Dr. R. J. Coney of Cheraw, S. C., which was well discussed and enjoyed by all.

R. M. Newsom, M. D., Secretary-Treas.

UROLOGY

MILTON WEINBERG, M. D., Sumter, S. C.

HUNNER, GUY L.: RECENT CLINICAL STUDIES IN UROLOGY. THE UROLOGIC AND CUTANEOUS REVIEW, VOLUME 19, AUG., 1925, NO. 8.

The writer gives his results of the study of more than 2,500 cases diagnosed as ureteral strictures during the period of the past ten years. He emphasizes the importance of all physicians familiarizing themselves with the "multifarious phases of ureteral stricture." He states, "Ureteral stricture is one of the most common lesions of the abdomino-pelvic cavity. The symptoms due to its presence lead to more errors in diagnosis and to more ill-directed therapeutics and unnecessary operations than those of any other disease". "The operations performed because of symptoms that are in reality due to ureteral stricture in about the order of their frequency as follows: Appendectomy, Gall-bladder operations, various kidney operations, oophorectomy, suspension of the uterus, and other pelvic operations on the outlet and perineum. Some patients run the gamut of all these operations, and subsequent surgeons, having no unattacked organ on which to blame the persisting symptoms, then proceed to explore the abdomen for adhesions supposedly left by their fore-runners."

He thinks that many surgeons frequently operate upon the kidney for lesions of that organ when they are primarily due to stricture of the ureter. The following are some of the needless kidney operations: Nephropexies for ptosed kidney, hydronephrosis, and the so-called kinks; kidney infections which can usually be cured by ural dilations; nephropexies, nephrotomies, and nephrectomies for the so-called essential hematurias; congenital

malformations which have the above lesions that are due to stricture and can be cured by proper ureteral dilatations; repeated operations on a kidney for recurring stones which stone formation can be avoided by establishing proper drainage in the ureter; various operations for nephralgias.

The writer gives the prominent symptoms due to ureteral stricture as follows: Pains in the area of the local disease usually situated in the lower ureter, backache, pain in the flank, and kidney colic from the urinary stasis; bladder disturbances in many instances of an intermittent character. About seventy-five per cent of the patients with ureteral stricture complain of bladder trouble and frequently such are the only symptoms. The symptoms vary with frequent and painful urination in intensity and there may be an incontinence of urine. "of one hundred patients with ureteral stricture, about twenty have developed a secondary pyelitis and the urinalysis shows positive evidences of an inflammatory process in the urinary tract. About fifty patients show slight evidences of a lesion in the urinary tract with a few leucocytes, a few erythrocytes, albumin in varying amounts, or a few casts. About thirty out of one hundred have an absolutely normal urinalysis." Out of five hundred cases of pyelitis including the hydronephroses and pyonephroses, ureteral stricture was most frequently responsible. Ureteral stricture was found in 34 out of 35 cases of pyelitis of pregnancy. It was also observed in many cases of multiple abortions due to renal incompetence, chronic pyelitis in children, renal and ureteral calculi, congenital malformations. The author thinks that ureteral stricture is usually due to focus of infection.

ROENTGENOLOGY

By T. A. PITTS, M. D., Columbia, S. C.

"Applications of roentgen rays.—In all the history of science there is no more brilliant page covering a period of less than thirty years than that which is concerned with roentgen rays. From the status of a misunderstood and somewhat dangerous plaything, they are only now becoming a useful tool of astonishing versatility and of untold possibilities in the fields of biology, pathology, medical diagnosis, physics, chemistry, and numerous phases of business and industry."

"The applications of roentgen rays may be roughly divided into, first, those depending upon direct utilization of the radiation; second, the determination of crystal structures, and, third, the founding of testing of theories of the structure of the atom."

"Only within the past four or five years has it come to be realized that industrial products may be examined for internal defects by means of roentgen rays just as successfully as the human body. By means of roentgen rays not only may faulty castings and material be rejected, but an entirely new technic of controlled casting and successful substitution of castings for forgings gained. There has recently been perfected a small portable roentgen-ray apparatus with which plumbers may locate pipe hidden in walls or under floors, electricians may find wires exactly and almost instantaneously, and carpenters may know just where beams and nails are before proceeding to new constructional work. We are not surprised, then, that the roentgen rays are becoming a valuable ally of the detective and customs official in discovering concealed articles of value."

"We are coming to know more about the solid state of matter than any other; we have more information bearing upon the actual existence of atoms and of the forces between them than was ever vouchsafed through the intermediation of any other experimental tool. It is now possible to properly correlate these fundamental building blocks of matter from a

knowledge of atomic arrangement and dimensions. Since even minute quantities of crystalline substances may be detected by roentgen-ray diffraction pattern characteristic for each, it is obvious that unknown pure substances or mixtures may be chemically analyzed, particularly if standards for the pure materials are available. The simplicity of roentgen-ray spectra and of the relationship between frequencies and atomic numbers has predicted and triumphantly identified hafnium, element number 72. The minutest traces of the still unknown 43, 61, 75, 85, and 87 in minerals should disclose themselves as characteristic emission lines or absorption discontinuities. All have been sought, but so far without success. It may be confidently predicted that if these elements do exist in matter to which man has access, they will be discovered by the roentgen-ray method."

"Thus we have reviewed thirty-seven, by no means all, of the achievements of the peculiar radiation discovered one day in the Autumn of 1895 by Roentgen—We have seen much of this mystery become clear fact under the hands of Barkla, Laue, the Braggs, Moseley, Siegbahn and all the other experimenters, who, bit by bit, have built up our present knowledge. Who would have dreamed in 1895 that in 1924 great hospitals, dental laboratories, government arsenals, university departments of physics, chemistry, engineering, metallurgy, biology, and medicine, factories producing sulfuric acid, or sheet metal, or paper, or bridges, or automobile tires, or chemicals, custom houses, detective agencies—all would have roentgen-ray laboratories working at top speed? Whither shall the science of roentgen rays have led us in another thirty years?"

Copied by T. A. Pitts, M. D., (abstracted by J. D. Camp, M. D., in August, 1925, issue of "Radiology.".)

"The Versatility of G-Rays. G. I. Clark. *Am. Jour. Roentgenol. and Rad. Ther.*, Dec., 1924, p. 556."

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

SITUS INVERSUS VISCERUM

In the Virginia Medical Journal, September, 1925, Royster reports a case of nephritis occurring in a male white American boy, aged seven years.

The child's family history was normal in every way. He was of spontaneous, easy birth, and did well till two years of age, after which he failed to grow off and develop as do other children. After passing the fourth mile stone, he began to have typical epileptic attacks and remained under-sized and under-nourished.

He was later admitted to the University Hospital, with edema or puffiness about the eyelids and face.

In addition to the urinary findings, which suggested nephritis, physical examination revealed the heart to be on the right side, the apex in the 5th. interspace, and the liver dullness to be normal in extent on the left side.

It is reasonable to presume, therefore, that all the other viscera were likewise transposed; the spleen being on the right and the gall bladder on the left.

The fact that this child had transposed viscera in no wise accounted for its underdevelopment.

Recently we operated on a full grown, well developed, healthy looking young lady aged 22 for an acute low midline and right sided abdominal pain. Her temperature was 99, pulse 90, W. B. C. 9,800, Polys 78 per cent, urine

normal, to chemical and microscopic study. The soreness and localized tenderness was not altogether typical of acute appendicitis.

Roentgenogram of the kidneys, ureters and bladder showed no stone.

Getting no better after watchful waiting for several hours, a right rectus incision was made. The sigmoid was found lying where the cecum should have been; the rectum entered the pelvis from the right side; the cecum was found lying with an acutely inflamed appendix in the left lower abdomen or pelvis. The appendix was removed in the usual way.

Search of the upper abdomen found the liver on the left side with its attached gall bladder. The spleen was on the right side and the pylorus lay to the left instead of to the right.

Following closure of the wound, the patient made an uninterrupted hospital convalescence.

The patient's heart was in the right side of her thorax.

This was a typical case of Situs Inversus Viscerum, and the most interesting part of the patient's history was that she complained of her pain and soreness near the middle and to the right, in contradistinction to the left side where the appendix was found.

The fact that there was so little rigidity or extreme tenderness over the affected side is possibly accounted for by the fact that her abdominal wall was comparatively thick and that the appendix itself lay well below the brim of the pelvis, being really a case of left sided pelvic appendicitis.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

AN ANTI-DIPHTHERIA CAMPAIGN

A live wire organization in New York City has proposed an intensive anti-diphtheria campaign with the slogan: "No Diphtheria in New York State in 1930." The idea is a challenge to the public in that state and in every other state in the Union.

Yes. Why not? The question of having diphtheria is one that every parent who so chooses may definitely answer in the negative in behalf of his children. The Schick test will tell the parent and physician whether the child is susceptible to diphtheria and toxin-antitoxin will make the susceptible immune.

Just what would it mean to have no diphtheria in South Carolina? How much could we afford to spend to eradicate this disease? Is not the saving of a life of one child from diphtheria worth all the money it would cost the State for a state-wide vaccination of children against this disease?

Diphtheria is the most fatal disease for the child under five. In South Carolina last year 112 children died of this disease. Many more contracted the disease and recovered, but will be permanently marred for life. The following is the statistical report of diphtheria in South Carolina during 1924:

January	124
February	111
March	84
April	134

May	145
June	63
July	58
August	180
September	354
October	479
November	399
December	217
Total	2,348

And yet, diphtheria is easily preventable. The preventive treatment consists of three injections through a needle of diphtheria toxin antitoxin, at an interval of two weeks. Following the third injection, from three to six months must elapse before immunity develops. We know that practically all babies and young children are subject to the disease and should be given the toxin antitoxin treatment without doing the Schick test. The toxin antitoxin means safety for the child and is certainly worth while.

If it is important enough for the state of New York to eradicate diphtheria, it is certainly of equal importance in South Carolina. And when we consider that in some states this disease has been on the increase, it is time that we realize the seriousness of the situation and take some steps towards its eradication. Diphtheria could be stamped out completely if every child were inoculated with toxin antitoxin. Let us all unite in wiping the slate clean of this disease in the next five years!

INTERNAL MEDICINE

J. H. CANNON, M. D., F. A. C. P., CHARLESTON, S. C.

THYROID FAILURE WITHOUT MYXEDEMA

By Dr. Charles H. Lawrence, Medical Clinics of N. A. May, 1925.

The glands of internal secretion have always held a great fascination for the student of medicine. A very brief summary illustrating their relation to the individual, shows how this interest is perfectly natural in view of their admitted importance. Thus, Walter Timme groups mankind, endocrinologically speaking, into three epochal periods. The first, extending from birth to puberty (period of growth and development), presided over by the pineal and thymus; secondly, puberty to prime (years of aggression, activity and reproduction), under the domain of the gonads, whose control is greatly assisted and modified here and in the latter part of the first period by the thyroid, pituitary and adrenals; thirdly, period of deterioration (involution to dissolution), marked by gradual diminution of activity of the whole endocrine system.

The thyroid gland is one of the most common sufferers of aberration of function and also is the one whose abnormal function we can most frequently recognize, and lastly, but by no means least, is the one in which we are most able to hold out hope of relief.

The past few years have witnessed wonderful contributions in the study of the thyroid, the summation of which, makes for a correlation of our knowledge that is extremely gratifying and encouraging. Lack of space forbids further discussion of this most interesting gland which exerts such a powerful metabolic influence over the individual and I must content myself by calling your attention to another contribution, whose importance cannot be ever estimated.

Dr. Charles H. Lawrence points out a type

of thyroid failure in the adult without myxedema. He has in the past year differentiated 32 patients who had none of the clinical picture of myxedema, but whose laboratory findings and response to thyroid medication, left no doubt as to the cause of the trouble. He believes this clinical dissimilarity is due to the age period in which the thyroid failure occurs. Thyroid failure in adult life causes myxedema, congenital or intra-uterine failure results in cretinism. He believes that it is failure in childhood or adolescence that produces the picture he discusses.

He cites two such cases. They present such interesting pictures, that I shall summarize one with the conviction, that we can each recall cases that at once suggest that they possibly, if not probably belong in the class of cases under discussion.

Female, 42 years of age. Chief Complaint, Headaches "she has always had". Onset usually at night, at first occipital, spreading over the head and becoming severe in the temples. Duration usually 24 hours, recurring about every three weeks, though she had had intervals of three months without attacks.

No history of headaches in parents or grandparents. One Sister who had headaches finally developed myxedema. She had never had any serious illness. She never had high spirits or vitality; appetite and digestion good, though she had always had been very thin. She matured at 12, regular, occasionally 2 or 3 days early, always 5 days duration, amount normal and without pain. Headaches were more apt to occur at this time, though the relation was not constant.

She stood well in school, graduated from college and was filling acceptably a position requiring responsibility and executive ability. She was distressed about her future on account of the increasing headaches and was "always tired." Bowels always regular but recently constipation was giving some trouble and wor-

ry over her condition was interfering with sleep.

Physical examination showed a tall thin woman, 5 feet 8 inches tall, weighing 105 1-2 lbs. Skin pale, cool, not especially dry, mucous membranes normal in color. Expression and posture expressed fatigue. Hair normal in amount, texture and distribution. Teeth and throat negative, thyroid not enlarged and there was no adenopathy. Chest negative; breasts undeveloped. Eye grounds and visual fields normal (pituitary enlargement causes change in visual fields and is important point in differential diagnosis in cases of headaches).

Blood and urine were normal, except a trace of sugar at one examination. There was no hyperglycaemia. The diagnosis made at this time was Migraine. Her only relief came from the curtailment of her activities almost to the point of invalidism. Activities approaching normal were soon followed by headaches that were severe and uninfluenced by treatment.

Two years later she returned to Dr. Lawrence's clinic for a weeks study. The physical examination was as before. The blood picture was normal except the lymphocytes were 55 per cent. The total white count was 6750. Urine negative. Phenolsuphonephthalein test was 51 per cent in 2 hours. Blood chemistry showed, Non protein nitrogen 41.7, urea nitrogen 16.9, uric acid 3.8, creatinin 2.1, blood sugar 86. Alveolar Co_2 34, a low normal reading. The sugar tolerance test was normal. Urine and blood urea curves showed a sharp rise and delayed excretion. The basal metabolism rate was minus thirty per cent, two readings. Temp. 97.6, pulse 75, blood pressure slightly below normal, X-Ray examination and examination of eyes and ears, including the Barany test were negative as was the Wassermann.

The conclusions were therefore, undoubted hypothyroidism, also a nitrogen retention similar to that associated with Nephritis. She was given thyroid extract grs 111 daily and no change in her diet or mode of living was made. The dose of thyroid was later reduced to 2 grs on account of some increase of pulse rate. This

she has continued with brief interruptions from time to time. She has had only 2 headaches in the past twenty three months. One after an unusual demand upon her strength and the other after leaving off the thyroid for six weeks. She has gained 11 1-4 lbs. in weight.

A check up of the work later showed some interesting changes. Urine normal, lymphocytes were now 34 per cent, blood chemistry showed N. P. N. 30, urea 15, uric acid 3.6, Sugar 91, blood pressure 120-80, temp. 98.6, pulse 72, basal metabolism test plus 26 per cent and she was advised to stop the thyroid for a week. There was no evidence of hyperthyroidism however.

Lawrence calls our attention to this type of case because he believes they represent a type frequently unrecognized and not of rare occurrence. The cases he has been able to differentiate had all been treated by several physicians who failed to recognize failure of the thyroid gland probably because of the absence of myxedema.

He believes that such symptoms as extreme fatigability otherwise unexplained, is always suggestive. Such signs as pulse rate below 70, with only slight quickening after exercise and a subnormal temperature; blood smear showing lymphocytosis without anaemia, that such cases should have their basal metabolic rate determined.

He points out some interesting observations regarding treatment. No set rule can be laid down regarding the amount of thyroid necessary to restore equilibrium. Such cases, especially those of long standing, require larger doses in the beginning to overcome an initial inertia. Once the basal metabolism has been raised to normal, usually much smaller doses are sufficient to maintain it at a normal level.

Such cases should be kept under observation in the early stages of the treatment, temperature and pulse rate, weight, subjective symptoms noted and if possible the basal metabolism should be recorded weekly. As improvement approaches normal the thyroid extract may be reduced, usually about one third, then the patient may be seen at longer intervals.

Since the thyroid function fluctuates con-

siderably under the influence of fatigue, nervous strain or infection, also pregnancy and lactation they should be told to report the occurrence of any of these conditions promptly.

The administration of some thyroid preparation does not constitute the entire treatment of these cases. As they improve they are apt to over exert themselves and thus retard recovery. Lightening the load wherever possible, such as the removal of foci of infection, correction of eye strain, etc., should be insisted upon. Mental depression, irritability and failure to cooperate must be allowed for as they disappear under treatment.

Definite hypofunction of the thyroid rarely if ever recovers to the extent that the patient can get along without any help in the form of some thyroid preparation. We should bear in mind that they are capable of harm, thus, the danger of producing an hyperthyroidism is a very real one if the case is not properly supervised. It is therefore advisable to omit the treatment at stated intervals and should the symptoms return, the patient will be quick to report them.

He summarizes his conclusions as follows:

1. Thyroid failure of marked degree may exist without causing myxedema.

2. The condition is frequently overlooked because of the absence of signs usually associated with hypothyroidism.

3. The symptoms of fatigability, irritability, and depression are often called neurasthenia. That diagnosis should not be made nowadays until the patients metabolism, basal and special, has been thoroughly tested and evaluated.

4. Thyroid failure without myxedema is a definite clinical type, due to failure of normal secretion before maturity, possibly before puberty.

5. Fatigability in a patient showing no organic disease and no adequate anaemia, but showing bradycardia, subnormal temperature, hypotension, and an increase in the number of lymphocytes in the blood, should raise the suspicion of thyroid failure.

6. The administration of thyroid extract is not however, justified by the presence of those findings, and should not be instituted until the true basal metabolic rate has been determined. In doubtful cases, in which the rate is between minus ten and minus twenty percent, determination of the sugar tolerance is the most useful diagnostic aid. Slight thyroid failure does not affect sugar tolerance.

7. Thyroid extract and thyroxin are highly potent, and therefore dangerous preparations. They should never be given unless thyroid failure has been proved to exist, and their administration demands close oversight of the patient until their effect has been determined.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

HEMATOMA OF THE ANTRUM

Nasal hemorrhages are always undesirable. It occurs from Middle or Inferior Turbinate operations or spontaneously from the (a) artery at the Anterior end of the Septum (b) rather rarely from high up post-nasally or (c) on the floor of the Inferior Meatus, but it is unusual to have serious hemorrhages following diagnostic irrigation of the Maxillary Antrum. Such a case was reported in the Laryngoscope, page 600, by Dr. Martin Ross of New

York. It started one-half to one hour after irrigation, which was bloodless. On readmission the bleeding point could not be found, the nose tightly packed without effect, even a post-nasal plug was ineffective, it was loosen by the patient's hawking and a Berney in the Inferior Meatus beneath the Turbinate was ineffective, but another Berney in the Middle Meatus controlled the hemorrhage.

The hemorrhage must have been intra antral and going out through the normal opening in the Middle Meatus, needing the plug in the Middle Meatus to complete its control.

NEWS ITEMS

The Georgia Medical Society will run a special section of pullmans to the Southern Medical Association at Dallas, Texas, November 9th, to 12th. Dr. Allen H. Bunce, Secretary, 65 Forest Avenue, Atlanta, Ga., will be delighted to make reservations for members of the South Carolina Medical Association to join the party at Atlanta or other points. Leave Atlanta 4:20 P. M. Saturday, November 7th, arrive at Dallas 7:05 A. M. Monday night.

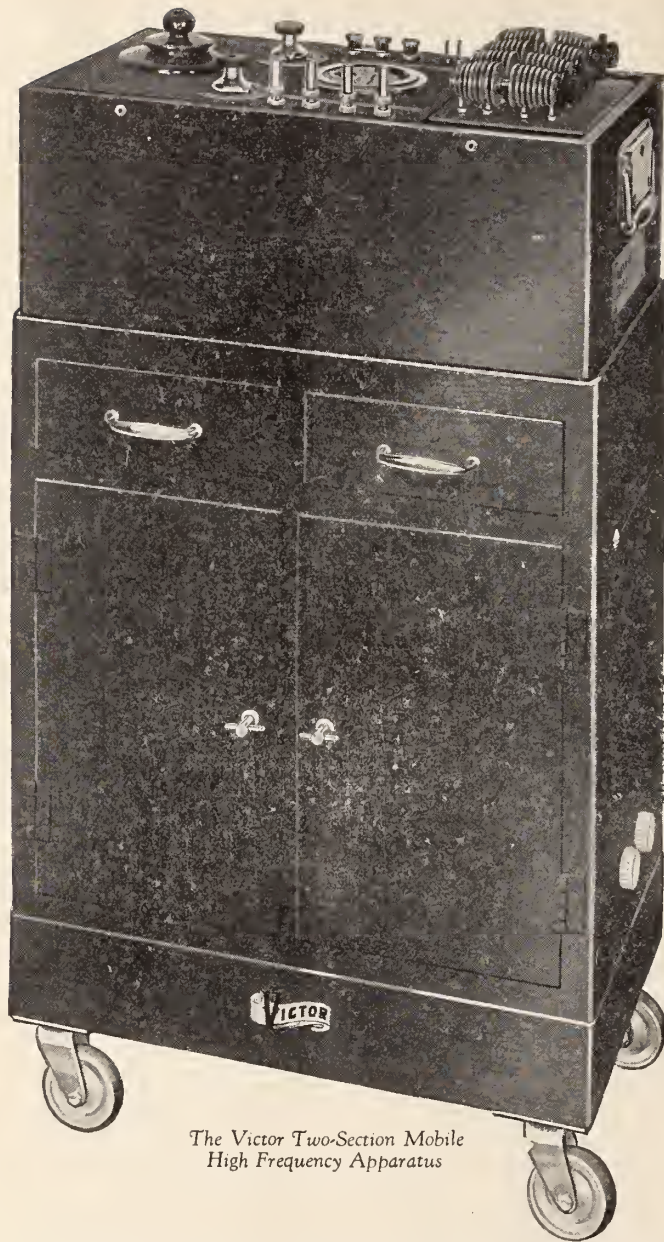
This Journal will be pleased to assist our members in any way possible.

The Oconee County Medical Society is having wonderful meetings. Drs. J. R. Young and H. W. Corbett of Anderson were visitors at the September meeting and read valuable papers. Dr. W. B. McWhorter of Anderson was a guest at the October meeting.

The Fourth District Medical Society meeting at Union, September 15th, was conceded to be one of the best ever held by the Society. Dr. R. S. Cathcart, President of the State Association was the honor guest and delivered an admirable address on the affairs of the South Carolina Medical Association.

Dr. J. M. Beeler of Columbia, Associate-Editor of the Journal, and member of the Staff of the State Hospital has been elected Superintendent of the Spartanburg General Hospital.

The American Association of Medical Colleges meets in Charleston October 26th, 27th, 28th. A report of the proceeding will appear in the Journal in November.



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The Journal

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South Carolina Medical Association

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Colonial Lake

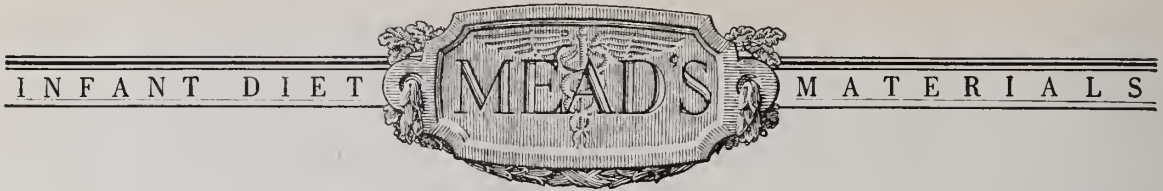
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EDGAR A. HINES, M. D., F. A. C. P., Editor-in-Chief, Seneca, S. C.

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EDITORIAL

SCIENTIFIC COMMITTEE MEETS

The Scientific Committee met recently in Charleston for a preliminary discussion as to the ways and means of making the Sumter meeting a record breaker. Attention has been called to the necessity for curtailing the number of papers on the program for 1926.

To this end titles may be sent to the Secretary at an early date and when a sufficient number have been received the program will be limited. The committee will meet again shortly to decide upon the details.

OBSTETRICAL ANALGESIA

The paper by Dr. Guess in this issue brings to our attention a timely subject.

We urge our readers to give their obstetrical clientele the benefit of this new application of anesthesia known in other fields for some years. There would seem to be no reason why

any good doctor no matter how isolated, may not put into practice this very practical addition to our armamentarium. We would advise in addition to the careful reading of the paper published in this issue a perusal of the original articles.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES MEETS IN CHARLESTON

The meeting of the American Association of Class A Medical Schools in Charleston October 26th, 27th, 28th was an event of tremendous significance to medical education in South Carolina.

Dean Robert Wilson and Professor W. F. R. Phillips have long been influential members of this great organization and to them is due the credit for the meeting South of Mason and Dixons line for the first time. The editor attended the meeting and believes it to have been an unqualified success from every stand-

point. The visitors exhibited the keenest interest in the routine working of our splendid medical college as they walked through the college and laboratories and Roper Hospital

Clinics.

The entertainments provided were as usual in Charleston an expression of the finest type of Southern hospitality.

ORIGINAL ARTICLES

X-RAY AND RADIUM TREATMENT OF CANCER

By Floyd D. Rodgers, M. D., Columbia, S. C.

Fifteen minutes is hardly adequate time in which to discuss the treatment, even one of the treatments, of so important a disease as cancer.

The part that irradiation plays in the treatment of cancer, is no minor role, for within the past few years there has been a steady trend away from the older methods of handling this ever increasing and more or less deadly disease.

Probably the greatest handicap to adequate therapy be it surgery, cautery or irradiation, is the procrastination on the part of both the patient and the physician.

SKIN LESIONS—Probably the most satisfactory method of treatment in superficial malignancies, particularly of the basal cell type, is irradiation, using either radium or X-Ray. Surgery will do the work just as the cautery will do the work, but irradiation is less painful and the resulting scar less noticeable, particularly in lesions about the eyes and nose.

Hazen (1) reports two hundred cases observed over a ten year period. Eighty-four per cent of the unselected cases were cured of basal cell cancer, and of selected cases, ninety-six per cent were cured.

There are other reports with a higher percentage of cures, but they have not been observed over any such period as Hazen observed his patients. The cosmetic result he reports as excellent.

With these remarks, I am going to dismiss the subject of cutaneous cancer and discuss the more formidable phases of this disease.

CARCINOMA OF THE CERVIX—Carcinoma of the cervix in the hands of the surgeon, was a brilliant page in medical history, because until surgery was used in the treatment of carcinoma of the cervix, no treatment of any value had been employed. However, a statistical study of the end results of surgery have been, and still are, unsatisfactory, due primarily to the fact that the patient comes in when the case is no longer a surgical disease, but has crossed that ill defined border line between operable and inoperable carcinoma. In fact, some of the more prominent surgeons throughout this country and Europe no longer consider carcinoma of the cervix a surgical disease.

James Heyman (2) of Stockholm, Sweden says that "in 1920 several of our leading gynecologists gave up operating on carcinoma of the cervix uteri."

William J. Mayo (2) in a personal letter to Dr. Skeel, says that "Radium has taken the place of extensive operation for the cure of carcinoma of the cervix with the exception of very early cases, and it is possible that it will soon be the method of choice in all cases either alone or combined with operation" and in this letter he remarked that he has not done a Wertheim type of operation in three years. The quotation from Dr. Mayo's letter is embodied in an article by Dr. Crile of Cleveland, Ohio published in the May 1924 issue of the American Journal of Obstetrics and Gynecology. In this article Dr. Crile sums up the situation in Paragraph three as follows:

"Radium and X-Ray therapy in the treatment of all cases of carcinoma of the cervix and judgment as to the abandonment of surgery in these cases being reserved."

Thomas E. Jones (4) of the Cleveland Clinic in the same Journal says "it should be borne

in mind that in discussing the relative merits of surgery and irradiation in the treatment of carcinoma of the cervix the basis of comparison must be the morbidity and the end results—three and five year “cures”—as immediate mortality in these cases pertains only to surgery. No immediate mortality can be attributed to radium therapy. We are convinced of the value of radium in inoperable cases of carcinoma of the cervix; we believe that accumulating evidence will give equally positive evidence of its value in early cases.”

U. V. Portmann (5) of the Cleveland Clinic says “I believe that the treatment of carcinoma of the cervix will become entirely confined to radiation therapy. Radium has already proved its value. Surgery and radium are equally successful in a small group of cases of early involvement. In a second group with vaginal involvement the operative procedure becomes more complicated and hazardous, and although good results are secured they are equalled or bettered by radium. A third group in which there is some involvement of the parametrium and a fourth in which the disease is widespread, the surgeon classified as inoperable. These last two groups include an average of 62 per cent of all cases of carcinoma of the uterus. In the cases of this type radium therapy has proved to be *no* less successful than surgery, and as the technic of radium application is being improved progressively better results are reported. It is particularly in the treatment of groups III and IV that intensive radiation by radium and X-Ray perhaps proves of greatest value as compared with surgery. In making a comparative study of the results of radiation and of surgery it must always be borne in mind that the surgeons who first see these cases determine their operability. It is only within recent years, and even now only a few surgeons, that any but inoperable cases have been treated by radiation alone.”

“At this early date we have not sufficient data from which to compile statistics of the end results of the treatment of carcinoma of the cervix by X-Ray radiation. Experience thus far, however, leads us to believe that by the combination of radium and short wave X-Rays patients have been distinctly benefited more

than by previous therapeutic methods. We have not refused to treat any case. We have observed the immediate cessation of hemorrhage and pain, more rapid healing of local lesions, early softening and disappearance of induration and more rapid convalescence than by other methods. Improvement has naturally been particularly striking in some cases with extensive involvement. The cases in which radiation has been less successful have been those in which some operative procedure has preceded irradiation. In cases of cervical carcinoma, if cauterization is performed, it should be followed immediately by irradiation. Except for diagnostic purposes, curettement and excision of tissue should not be done unless radiation is administered at the same time.”

Certainly in our experience, the cases that we have treated with Radium and X-Ray alone have given us our best results. We have several cases that were inoperable which are now well along in the three year period and are attending to their duties well and happy. Of the cases that we have seen only after operation, very few got beyond one or one and a half years. The cases that have been irradiated before operation and following operation are progressing better than the cases that had irradiation after operation only. None of these groups can compare with the cases that have had irradiation only. Mortality statistics vary rather remarkably. The good surgeon who has done a great deal of work with cancer of the uterus and carcinoma of the cervix and fundus, is able to keep his mortality at a fairly even level, and certainly experience in the handling of these cases reduces the sum total of the surgeon's mortality. So it is in the handling of these cases with Radium and X-Ray. Irradiation, to get results, requires as much intelligence, experience and judgment as does surgery or any other procedure. Your technic must be as exacting and accurate as any operating room. To know when to quit and how much to do is just as vital as “surgical judgment” is to the surgeon.

BREAST—Carcinoma of the breast has been and is now the bete noir of the surgeon and the roentgenologist. However, there is a trend among a few of the students of cancer who are advancing an entirely new idea as to

the handling of carcinoma of the breast and when the end results of surgery in carcinoma of the breast are studied, it is easy to understand why we should change our present mode of treatment.

Simmons and Deland (6) report "that the operative mortality of cancer in the Massachusetts General Hospital, in all cases in which radical operations were done was fourteen per cent, the operative mortality in which a laparotomy was performed, was 36.6, and for operation for cancer of the genito-urinary system, the mortality was 30 per cent." This heavy initial mortality is hard to justify unless the remaining two-thirds were completely cured. Surely palliative operations from which one-third of the patients died, is startling, not to say heart rending, and the study of statistics proves that the end results do not justify the initial procedure.

Lee and Cornell (7) report "on 87 operable cases of carcinoma of the breast admitted to the New York Hospital prior to 1919, they found only 15 per cent of the patients alive and with no evidence of disease at the end of five years. They further found that only one patient of the entire group survived the five year period where metastatic axillary nodes were found by pathologists. Other surgeons report cures from 22 per cent to 46 per cent which goes to show that nobody knows the truth about the end result of carcinoma of the breast.

A great deal could be said right here about the present treatment of carcinoma of the breast for we know that the accepted technic is, a complete removal of the breast with all the under lying structures down to the chest wall, with a complete dissection of the axilla, removing every lymphatic gland possible. This procedure has been in existence for a number of years, and is accepted as the procedure of choice. However, the poor end results causes a good many thinking men to be skeptical of its value. Of course, a breast with a chronic mastitis that is removed in this manner, will not recur. But certainly, in a hospital like the New York Hospital, where sections are made of all breasts removed, the five year survival of only 15 per cent of all known carcinoma is striking.

In pyogenic infections, we consider the lymphatics as our first line of defense. Certainly, we would not remove the lymphatics that drain an infected area, as a prophylactic measure, but as a prophylactic measure in carcinoma of the breast, we remove the lymphatics in the axilla whether they are infected or not.

Some of the greatest minds in the medical profession today believe that cancer is caused by a living organism. Accepting that as true for the moment, do you believe that good judgment would allow you to remove the uninfected lymphatics that drain the cancer region? You would ask, "What about the infected glands?" The answer is the same that it would be in a bubo. Remove the one infected gland or chain of infected glands, but not all the adjacent uninfected glands.

Herbert J. Paterson (8) speaking before the section on Surgery of the British Medical Association discussing cancer of the breast, makes the significant observation that the proportion of those free from recurrence after five years seems to be about the same as 25 years ago when the axilla was not cleared out as a routine measure, but only when there was evidence that glands were diseased. For those who have faith in cancer statistics he published figures which support that contention. He believes, that to remove the adjacent lymph nodes at the time of the removal of the primary growth is a mistake. That the nodes are a protective barrier and only harm is done by removing them. He thinks they may be removed at a later date with much greater safety.

Douglas Quick (9) in a discussion of malignant tumors in the intra-oral group, with others, came to make the following conclusions:

"The routine block-dissection of the neck in practically all cases of intra-oral carcinoma as generally accepted at the present is a frantic effort without regard for sacrifices and does not recognize either the natural history of the disease or the various factors which may modify it in individual cases.

The cervical lymphatics perform a conservative function in the early course of the disease, and to remove them by a routine early block-dissection removes nature's chief bar-

rier to dissemination, frequently at a time when it is needed most.

An expectant plan of treatment which recognizes the natural history of the disease and the natural factors of resistance to it, is an approach toward a more scientific solution of the problem, and in no way jeopardizes the best interest of the individual.

A conservative plan of treatment gives promise of reducing practically to a minimum the present operative mortality; of saving patients of an appalling number of unnecessary operations, and of saving considerable added suffering following many of these operations."

I realize that the two authors above quoted disagree with the generally accepted methods. However, it is now my belief that with cancer of the breast, pre-operative irradiation followed by conservative surgery, (by conservative surgery I mean the removal of the diseased tissues and nothing more), followed by irradiation, will give us end results of which we can be proud. I do not mean to say that patients will all get well, but with close cooperation between the surgeon and the roentgenologist we can save many more lives than we do today.

To illustrate my point, given a woman with a nodule in the breast, submit this patient to irradiation of the breast and axilla. The probability is that the tumor will decrease in size and even disappear, however, this would not contraindicate surgery, because the same thing that caused nodules to appear in the breast the first time, is still present in the breast, and the breast should be removed by simple amputation. No effort made to remove muscles or fascia and the axilla should not be tampered with unless there are palpable lymph nodes. If, at a later date, in spite of irradiation a lymph node in the axilla or supraclavicular space appears, then the patient can be submitted to an operation a second or a third time for the removal of the diseased tissue, safely and with benefit.

My personal belief is, that this conservative handling of cancer of the breast would result in benefit to the patient. Certainly, the results could be no worse than the results now obtained by the radical operative measures.

There is one other very important thing

in cancer of the breast that I want to bring most forcibly to your attention. Cancer of the breast metastasizes with surprising regularity in certain definite areas. The lungs and ribs being the site of predilection. Therefore, any woman with a suspicious lump in the breast should have X-Ray plates of her chest made before any treatment whatever is instituted and the surgeon in particular should never operate until a plate of the chest has been made and a negative report received. Because it is a very useless procedure to remove a breast with cancer after the malignancy has metastasized to the lungs.

CONCLUSIONS

1 Basal-cell carcinoma of the skin is best treated with irradiation as proven by end results and cosmetic effects.

2 The prickle-cell skin lesion is still a surgical disease, when that mode of treatment is applicable.

3 Carcinoma of the cervix is best treated with radium and X-Ray.

4 Carcinoma of the fundus of the uterus will give equally as good results with surgery as with X-Ray.

5 Carcinoma of the breast is best treated with irradiation plus a modified surgical technique.

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DIPHTHERIA

By *M. W. Beach, M. D., Charleston, S. C.*

In choosing diphtheria as a subject for this paper it is not with the idea that I have something new and startling to present, but with the hope of invoking some discussion that will benefit those who are susceptible to this disease.

Forty years ago when Klebs and Loeffler demonstrated and isolated diphtheria bacilli to be the specific cause of this disease and six years later when Behring and Kitasato discovered an antitoxin for same the medical profession had visions of an early disappearance of this malady. Is it not appalling to the medical man and little less to the slowly awakening laity that in the registration area of the United States the mortality rate from diphtheria is sixteen per hundred thousand. Nevertheless we boast of the fact that medical science has long since found the causative agent, perfected a mode of prevention and developed a specific form of treatment.

Therefore I am going to ask you to consider:

- (1) The causative agent
- (2) The mode of prevention
- (3) The specific form of treatment

Read before the South Carolina Medical Association, Spartanburg, S. C., April 23, 1925.

THE CAUSATIVE AGENT: Since we are more or less familiar with the biology, morphology, pathology and habitat of the bacillus diphtheria a lengthy discussion here would be superfluous. But certain clinical and laboratory facts regarding diphtheria toxins are essential to a clear understanding of the disease and its treatment. (1) When the bacillus diphtheriae becomes implanted on a susceptible mucous membrane it produces a highly concentrated soluble toxin which is rapidly absorbed by the tissues and reaches the blood stream. (2) That we are unable to measure the quantity of toxin produced in a given case by the severity of the local inflammation or by the size of the membrane. (3) That the absorbed toxin acts with great rapidity on the tissues so that a fatal effect may be produced in thirty-six hours. (4) In susceptible animals this toxin leaves the blood stream with great rapidity but if antitoxin is present always combines with it rather than the tissues. (5) Furthermore that there seems to be a certain predilection of this toxin for the heart and nervous system. (6) It is assumed that frequent exposures to diphtheria bacilli is inductive of "natural" immunity.

THE MODE OF PREVENTION: When considering the infectious diseases none has responded more fruitfully to research than diphtheria. No such serious disease is easier to prevent. As you know diphtheria is spread by direct contact, indirect contact, droplets and by infected milk. But probably ninety per cent of these cases are acquired by direct contact with diphtheria patients or carriers of this disease. In attempting to ascertain the reason for the continued prevalence of diphtheria in spite of all that is being done to limit the spread, the most conspicuous factor at the present time is undoubtedly the human carrier. Park reports a case where virulent diphtheria bacilli persisted in the throat for as long as eight months. He also states that in ten per cent of the treated cases virulent organisms persist for two weeks after the disappearance of the exudate and in over one per cent as long as four weeks. Thus you see we may find many so called temporary carriers who are sources of infection. But here we generally know the host

and can maintain a fair amount of quarantine. Far more important—since they are unsuspected—are the healthy persons who harbor virulent bacilli in their upper respiratory passages. Such persons are immune and are therefore not susceptible to the disease but are the prime factor in maintaining the present high mortality rate. Furthermore, Goldberger and his co-workers tell us that one out of every thousand individuals is a carrier. Bearing these facts in mind and realizing that we can do little in controlling an unsuspected spreader of this disease and if we would succeed in reducing the mortality rate we must place our efforts in that field of the greatest susceptibility. Park tells us that practically eighty per cent of the preschool children are susceptible. That the percentage is highest between the second and the fifth year. Since there is such a high percentage of susceptible children in the preschool class the modern tendency is to give all of this group the toxin-antitoxin treatment. For the procedure is simple, causes little pain or inconvenience, does not require secondary observation and the immunity produced may last for several years, or even a lifetime. Furthermore, I believe that there will be a more universal usage of toxin-antitoxin since Park's improved formula (one tenth L. Plus dose of toxin) give little or no reaction in older children and adults. Nevertheless, the toxin anti-toxin method of immunization cannot be used as an emergency measure; for the production of antitoxin following its use is rather slow and may require from eight to ten weeks to produce its full effects. To produce passive immunity, which is of short duration, inject one thousand to two thousand units of antitoxin. The greatest benefits will be derived from these measures only when the general practitioner makes these procedures a routine practice, since the majority of this class comes under his professional care. Therefore if we could impress upon parents the necessity of immunizing their children after the first six months and could require each child entering school for the first time to present a negative Schick certificate this would be another step forward in lowering the death rate from diphtheria.

THE SPECIFIC FORM OR TREATMENT: To Behring and Kitasato goes the credit of discovering diphtheria antitoxin. But it was Roux in 1894 who laid the foundation whereon a specific form of treatment was developed on a firm and practical basis. However, we are indebted to Park and his co-workers for the refinement and concentration of the antitoxin bearing serum.

In considering the serum treatment of diphtheria we must ever be mindful of the fact that there is being produced an amount of virulent poison of unknown quantity. That in antitoxin we have a specific antidote for that poison if administered early and in "overdose"; for only this method places the patient within the safety zone. It is well to stress the point of administering antitoxin immediately in all suspected cases. Whether the case is a beginning diphtheria, scarlet fever, tonsillitis, or Vincent's angina cannot always be determined at the first visit and to wait the result of a culture means a delay of from twenty-four to forty-eight hours which may be costly to both doctor and patient. Antitoxin will do no harm to any of these suspected cases and when administered early may prove a life saver. This applies even more to the croup cases that persist from the night into the following day. Wise and with good judgment is the therapist who first administers antitoxin and then takes the chances on a culture; for the chagrin of your patient is more pleasant than the aroma of the funeral rose. Now in those cases where the diagnosis is clear are there any guides whereby we can regulate the amount of antitoxin to be given? What symptoms would indicate that this case should have a specified amount of antitoxin and that one so much? There is absolutely no positive indication to show the exact dose necessary in any case for it is impossible to estimate the quantity of toxins that have been and are being absorbed. Therefore the principle thing to do is to be sure and give sufficient antitoxin at the first dose to place the patient with a reserve supply. Park advocates giving from five to twenty-five thousand units, Woody twenty to one hundred and fifty thousand and Bie even gives as much as two hundred thousand units in some cases. Antitoxin may be

given intravenously, intramuscularly, intraperitoneally and subcutaneously as the indications demands. Park has shown that diffusion of antitoxin occurs ten times more rapidly when given intravenously than subcutaneously and four times more rapidly when given intramuscularly than subcutaneously. Platou states that absorption of antitoxin after intraperitoneal injection is approximately five times greater than after intramuscular injection.

DISCUSSION

DR. L. O. MAULDIN, Greenville:

It seems to me that a paper on so important a subject as diphtheria should be discussed, because sometimes by discussion we can bring out some points that may be very effectual in saving the life of a patient. It is wise for the profession to be well posted on diphtheria, because at times we have emergency cases. I want to agree with Dr. Beach in practically everything he has said, and possibly emphasize a few things he has said which may be of particular interest. The first thing I want to emphasize is the importance of making the diagnosis early and getting the antitoxin into a patient early in the trouble. The records have been figured out very definitely, and they show conclusively that antitoxin administered in the first twenty-four hours results in practically one hundred per cent. of cures; with antitoxin administered in the second twenty-four the cures are somewhat less; in the third twenty-four hours still less; and the greatest mortality, of course, happens in the cases where antitoxin has been administered late in the disease or not at all.

There are some features connected with diphtheria of the nose that I wish to emphasize. One of them is that it has been my experience, in quite a number of cases of nasal diphtheria, that the diphtheria may have existed in the nose for a rather long time and the diagnosis never have been made. It is not usual for diphtheria to have existed in the throat for a long time without a diagnosis having been made, but, as a matter of fact, we do not see in the nose very well, and we find that these cases sometimes go on for rather a long time with occasional bleeding of the nose, or with a watery, serous, or sanguineous discharge which the little fellow may show on his pillow, and sometimes it is not diagnosed until there is obstruction in the nose and the patient comes to the nose and throat man. I have seen a few cases of this character in which I have been able to remove the membrane from the nose in the form of a cast from the interior portion of the anterior part of the nose. I have had examinations made

of such casts and found the patient had diphtheria. It seems that these cases of nasal diphtheria are not so fatal as that in the throat; they do not spread so fast. The history of these cases is that a child may have a slight temperature, possibly extending back through months. The temperature may have been thought to be due to some intestinal condition or to cold in the head or something of that kind. Those cases—I wish to make it emphatic—I believe should be cleared up definitely by culture and laboratory.

Another thing—in giving antitoxin I believe it is best always to try out the case. We can not look at a patient and tell whether he is going to have an anaphylatic reaction to antitoxin, and it is best to try out the case with five or ten drops of antitoxin, wait half an hour and see what kind of reaction we are going to get. Then, in giving antitoxin, in case you do get a severe reaction, after giving a dose, we should be prepared to meet an emergency in the form of anaphylaxis. The best recognized thing to do in case we do have an anaphylaxis is to give a medicinal dose of adrenalin solution, and also give the antitoxin in small doses at short intervals.

DR. W. E. SIMPSON, Rock Hill:

This paper is particularly instructive to those of us on the firing line, as you might say. There are few, if any diseases, more deadly than diphtheria, and few over which we have more perfect control, if we get hold of it in time. The fact is that diphtheria is a curable disease and that it depends almost entirely on the general practitioner whether or not we are going to save the children who contract. So many cases are called to the attention of the general practitioner that I feel this paper ought to appeal to him particularly. Since so much depends upon the early recognition of diphtheria and the early administration of antitoxin, I think we ought to pay particular attention to what he has told us. As the Doctor says, almost all children from two to five years of age are susceptible. Since we have it in our power to immunize these children by the administration of toxin-antitoxin as completely as we can immunize people against typhoid fever and smallpox, it is possible to stamp out the disease. The fortunate thing about toxin-antitoxin is the younger the child, the less the reaction. In small children, from one year up to five years, I have had no reaction at all. I have had only two reactions up to ten years of age, and these were mild, just a little bit of fever and discomfort for a short time. Toxin-antitoxin is not a particle of trouble to give, and the child will be protected for from three to five years, or perhaps for life.

Our duty is to instruct our patients along this line, and I am afraid this is one place in which we fail to do our whole duty. Of course, sometimes we meet with some opposition, but I think if we do a little missionary work among parents we shall have good results. The incidence of diphtheria immediately rises when school opens, and Dr. Beach suggests the schools should require a negative Schick or certificate of immunization with toxin-antitoxin, just as it does for smallpox, before the child is admitted to school. If this is done diphtheria will soon be stamped out. Mothers, when children have sore throat, will look in the throat at once, and if there is a membrane on the tonsil will call the physician immediately, but when the baby has croup at night and is still croupy in the morning, they are not alarmed. Perhaps we should tell our parents that a croup that does not clear up when daylight comes is diphtheria until proved otherwise. Another good thing to tell our parents is that any child with a bloody discharge from its nose has nasal diphtheria until it is proved otherwise. We should take a culture for examination in all suspicious cases, and in this way cut off many carriers.

As to antitoxin, we usually give good-sized doses—not less than twenty thousand units at the first dose. So far I have had only one case that showed any reaction.

The point I should like to make is that we who are in general practice are the people that see most of the cases of diphtheria, and it is a responsibility resting upon us to educate our parents and our patients in regard to these atypical cases. It is those late and unrecognized cases that result so seriously.

DR. W. H. NARDIN, Anderson:

If the general practitioner will realize that ninety-nine per cent. of all cases of croup are laryngeal diphtheria, there will be less intubation and fewer tracheotomies.

I give antitoxin intravenously, if possible. I have not had much success with it given intramuscularly in laryngeal cases. So far I have had no anaphylactic reaction.

I differ with the Doctor on one point, that cases of Vincent's angina take several days to diagnose," why I do not know.

I want to emphasize that if you give the antitoxin early you will have fewer intubations and fewer tracheotomies.

DR. BEACH, closing discussion:

In regards to Dr. Nardin's question concerning the differential diagnosis of Vincent's angina, may state that where laboratory facilities are available we can usually rule out this condition, but even here the findings may be mislead-

ing for sometimes we not only have to deal with Vincent's angina but also a diphtheritic infection.

Another point that I would like to make is the value of intraperitoneal administration of antitoxin. The procedure is simple and safe. Pain and local reaction is minimized and sufficient antitoxin may be absorbed within an hour to neutralize the circulating toxin in the blood of any case of diphtheria.

OBSTETRICAL ANALGESIA

Synergistic Method of Gwathmey

J. D. Guess, B. S., M. D., Greenville, S. C.

In this paper the writer will make no attempt to present original observations from his own experience, although there will be briefly described several of his own cases. Instead, an effort will be made to present what might be termed a popular exposition of a method of obstetrical analgesia which was originated and is being perfected at the New York Lying-In Hospital by Dr. James T. Gwathmey and the clinical staff—a method that is sometimes termed Gwathmey's since he initiated its development. The material for this discussion was largely gotten from articles by Dr. Gwathmey in the *American Journal of Obstetrics and Gynecology* of Oct. 1923, August, 1924 and March, 1925 and an article by Dr. Asa B. Davis, chief of the New York Lying-In Hospital, which appeared in the June, 1925 number of *Surgery, Gynecology and Obstetrics*. Further information was gotten in conversation with various members of the hospital staff and others in New York, who are using the method and who are familiar with it.

Gwathmey's efforts were not to satisfy any new demand. Since the earliest mother gave birth to her first-born, has all woman-kind prayed for relief from the travail of labor. And since the first obstetrical attendant had his heart wrenched by the agonizing cries of pain at this his first case has there ever been a challenge to medicine to seek and find a painless method of parturition.

From the earliest times and amongst scattered peoples, progress was made—Progress

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never universally enjoyed and which was very slight. As illustrative of this, recall the crude obstetrical chair of certain African tribes, the squatting posture preferred by many of our own negro women, the initial dose of castor oil, which many women insist, makes labor quicker and easier. Other methods might be mentioned. To most women alleviation of pains of childbearing means either less severe agony or quicker progress of labor. Without either endorsing or condemning its use, certain it is that women in labor frequently ask for pituitrin because of the quick relief which they expect it to give.

But there are more modern and more nearly pain-relieving methods which have been developed. Ether was used as a surgical anesthetic by Morton in 1856, and almost immediately Sir J. Y. Simpson, of Edinburgh began using it in his maternity work. He was not satisfied with it, however, and so he gave us chloroform. Ether and chloroform inhalations have been widely used ever since. However, when used to the extent of analgesia they greatly retard or even stop labor, and it is my observation that they are either withheld in effective amounts until just at the end of labor or else labor stops, the inhalations are discontinued, and the woman allowed to come out and resume labor, this time with little or none of the anesthetic.

In 1880, a Russian, Klikowitch, began the use of nitrous oxide and oxygen in obstetrics, and in 1911 the method began to come into general use in this country. This method of inducing analgesia is widely used, and it is very satisfactory in that it certainly alleviates pain and to a considerable degree hastens labor. It is too expensive, however, for general use in every day practice. It requires the use of a rather expensive and cumbersome machine, the transportation of which is very inconvenient, and it requires that the doctor remain constantly with the patient during its use—an ideal which is good but not practical in many instances.

In 1902, "Twilight Sleep", or morphine and scopolamin obstetrical narcosis was begun in Germany, and was introduced into the United States in 1913 by Kronig and Gauss. Here

was a synergistic method, which came well recommended. It was welcomed by physician and mother alike, described and praised in lay magazines and discussed in medical gatherings. But it was not to be a success. The method was too technical, the requirements too rigid, and the dangers to mother and baby too great for it to last. Now it is seldom heard of and is used by comparatively few and by them only in well organized hospitals.

Spinal anesthesia and local analgesia have been used with varying success, but they are not used today.

Elective version, as done by Irvin S. Potter, as a means to abolish the agony of second stage labor, should be mentioned. In his hands the method seems to be successful, but it demands a well organized hospital and the ability to do a Potter version and extraction as he is able to do it, and such skill is exceptional.

Thus it is seen that the eternal quest had to go on, for neither the ideal nor even the satisfactory method for general use had been evolved.

The ideal as sought by Gwathmey in his method and so stated by him is "A state of relaxation and analgesia with consciousness little if at all impaired, so that full cooperation might be had at all times—this by a method so simple that it could be used either in home or hospital and by any physician, in an entirely empirical manner." His method was not suddenly arrived at, nor is it yet perfect. It is the result of a series of more or less unrelated observations, carefully studied both clinically and otherwise, and gradually built into a well correlated method, which even yet is not one hundred per cent perfect.

The antispasmodic and sedative effect of injections of magnesium sulphate has been known for many years. The drug formed the basis of a one time popular treatment of tetanus. It has also been used to quiet the restlessness of the insane. In 1923 Weston and Howard reported a series of over 1,000 injections of the drug in which they stated that it seemed to have a sedative action, occurring in from 15 to 30 minutes and lasting for from 5 to 7 hours. The dose used by Gwathmey is only one-nineteenth the minimum fatal dose so

that its use is perfectly safe. The injection causes little pain if placed well down in the muscle, and it is not followed by an area of induration such as follows the intramuscular injection of the mercury salts. Abscesses have followed its use, but not more often than occur in other hypodermic medications, and these are obviated if a sterile technique is employed.

That a synergistic action exists morphia and magnesium sulphate when given together was already known. This synergism does not intensify morphia narcosis, but prolongs it.

The combined use of the two drugs has been advised in all cases where morphia is indicated.

Morphia had already demonstrated its value in obstetrical practice. Prior to and independent of its use in "Twilight Sleep", it had for many years been used in the first stage of labor both for its pain-relieving qualities, and also because it was found to hasten labor by aiding in softening and quickening the dilatation of the cervix. Its use for this purpose had been found to be safe.

Ten years after the introduction of ether as an anesthetic for general surgery Thaler and Hubel used rectal injections of ether in oil in 100 obstetrical cases. Since that time such injections have been successfully used for surgical anesthesia. For obstetrics, however the method did not prove practical because of the inability to accurately enough regulate its effect. In attempting to secure sufficient ether action, at times too much resulted and gave rise to apnoeic babies.

Gwathmey in a series of experiments confirmed the synergistic action of magnesium sulphate and ether. The effect is so pronounced that it makes possible the production of a true analgesia by combining them, the amount of ether required being one-half the anesthetic dose and so well within the limits of safety to both mother and child.

The oxytocic action of quinine had long been recognized and widely employed. It was known to be safe in any stage of labor. There was at first some question as to whether quinine was absorbed from the rectum. That it was absorbed was demonstrated during the development of Gwathmey's method. When

omitted from the colonic instillations labor was prolonged and the percentage of forceps cases sharply increased. Among the cases where it was used there developed several instances of mild cinchonism.

These were the drugs and the facts concerning them that formed the foundation of Gwathmey's plan. Other facts concerning other drugs relevant to the problem were known, and these had to be tried out and eliminated before the method could approach perfection. Gwathmey and his clinical co-workers progressed slowly and carefully trying out different combinations and different modes of administration, exercising always the precaution to bring danger to neither mother nor child, and striving ever for simplicity along with efficiency.

In 1923 the method was first published. By its use, it was reported, a distinct and alleviating sedative action occurred in 94 percent, an exciting action in 3 percent and the patient's reaction to labor was unchanged in 3 percent. Experimentation with different combinations and differences in the technique of administration continued. In 1924 a second published report was made. The results had improved in that the sedative action which occurred in the 94 percent was more uniform. Gwathmey stated that over 90 percent of the patients who received the treatment were relieved of pain. B. C. Hirst in discussing the method before the New York obstetrical society on December 9, 1924 stated that "After a trial of about one year, I can say it is the only method for ameliorating the pains of labor that I find practical in private practice."

The last report descriptive of the method appeared in the June number of *Surgery, Gynecology and Obstetrics* and was prepared by Dr. Asa B. Davis, chief of the Lying-In Hospital. It is interesting in that in some respects it is a return to an earlier technique, and so is an indication of approaching standardization. It is this latest method that shall be described by me. It differs somewhat from the technique which I used in my own cases, and will, I think, make my future work with it more satisfactory.

THE METHOD

The patient must have an enema within 8 hours of the rectal installation, and yet long enough before, that the bowel will be quiet at the time of its administration. It is my practice to ask that an enema be given at the time I receive the call to the patient.

After labor has definitely begun and the patient has started complaining, the intramuscular injection is given. At this time the pains should be recurring at intervals of 3 to 5 minutes and lasting for 30 to 45 seconds. The cervix should be dilated to receive two fingers. If given early labor may be temporarily interrupted. It may, however, be safely given up to within an hour of expected delivery.

The first injection consists of 1-4 grain of morphine sulphate dissolved in 2 c. c. of 50 percent solution of C. P. Magnesium Sulphate. This is given, with due regard to asepsis, well down into the muscle of the gluteal region. In my own work I have used the deltoid muscle without any bad result. Make the injection during an active pain, so as to have the patient's attention more or less divided. State to the patient that it is being given for the purpose of relieving her. Quieten and darken the room. In one-half hour, repeat the injection, omitting, however, the morphia. Do this even though the patient has been largely relieved, already.

Do not give the colonic instillation until it is needed, and never give it until 50 minutes have elapsed since the first intramuscular injection. When given the pains should be strong, occurring at 3 to 5 minute intervals and the cervix should admit three fingers.

To give the instillation place the patient on her left side. Smear a little vaseline about the anus as a protection against irritation by any ether that might escape. To gain the patient's cooperation tell her that her pain is to be further relieved. Ask her not to bear down, but instead to "draw up" and to breathe deeply with the mouth open.

The formula for instillation is this:

Quinine hydrobromide Gr. XX.

Alcohol Dr. III.

Ether (anesthetic Oz. II 1-2.

Olive oil q. s. ad. Oz. IV.

The necessary apparatus is simple and consists of a soft rubber catheter, 20-22 F, a glass connecting tube, a short piece of rubber tubing and a tube clamp. Fill the catheter and tube with olive oil to exclude the air, clamp the tube, and pass the catheter into the rectum for a distance of 6 to 8 inches. The catheter must pass the descending foetal part and it may be necessary to guide it by with the finger in the rectum. The clamp is removed and the formula is allowed to slowly run in. This should require about 15 minutes, or the intervals between 3 to 5 pains. Stop pouring during these pains and with a crumpled towel in hand press firmly against the anus and perineum. As the last of the formula passes in, run in an ounce of olive oil, clamp the catheter and leave in the rectum for 10 or 15 minutes longer, exerting pressure on the anus with a crumpled towel meanwhile. Immediately give a third injection of the magnesium sulphate solution. Do not disturb the patient further, except to watch the perineum for bulging and to listen at intervals to the foetal heart. A quiet patient does not mean the cessation of labor.

If necessary because of a long labor, a second or even a third rectal instillation may be given. The interval between them should be not less than 2 1-2 hours, and they should contain only 10 grains of quinine. An injection of the magnesium sulphate solution should immediately follow each instillation.

Occasionally the baby is born without the mother's knowledge. Some relief is afforded in over 90 per cent. If necessary inhalations of nitrous oxide of ether may be given at the time of delivery. If chloroform is used great care must be exercised, else an apnoeic baby may result.

There are only three contra-indications to the use of the method, namely, diabetes, colitis, and auditory disturbances.

I have used the unmodified method in six selected cases. My technique was poor in the beginning but has improved, and with the improvement of my technique has come an improvement in my results.

In my first case, a para II, much of the

solution was expelled under the sheet, but not before the odor of ether appeared on the woman's breath. From the moment the ether was given the picture changed from one of noisy, restless, uncontrolled suffering, to quiet business-like labor and a quiet delivery—a great contrast to that of her first confinement when ether inhalations were given for over two hours in order to lessen her screams, and secure cooperation.

My second case was also para II. Her first baby was born in the hospital and nitrous-oxide oxygen was given throughout the second stage. Her second labor terminated after an early rupture of the membrane in the birth of an eleven pound baby. She dozed between pains and worked well with them, and declared afterwards that she had no worse time than she did with her first.

The third case was a primipara with a long drawn out first stage. The analgesia had about disappeared with the beginning of the second stage, and as I was using the old technique, I did not repeat the retention enema, but conducted the second stage under gas-oxygen.

The fourth case was not so successful. A primipara pre-eclamptic, with castor-oil and quinine induction of labor and a very early rupture of the membrane had a long drawn out and very painful first stage. Here again the analgesia was not so well marked and largely disappeared prior to the beginning of the second stage. Gas-oxygen was used in the second stage and a rather low mid-forceps extraction done. However, although she was very noisy and restless, during her first stage, I found out afterwards that she did not have a very clear recollection of it all.

The other two cases need no detail mention. Labor was rapid, easy, and uneventful. The women dozed between pains, and worked well with the pains, and after delivery had a rather hazy recollection of the experience.

I shall begin using the modified technique, and I am led to expect even better results than I have thus far gotten, for the increased morphine dosage in the first stage will deepen the analgesia and delay somewhat the need of the ether—oil mixture. The repetition of the latter will obviate the misfortune of its effect be-

ing dissipated before the termination of labor.

Although no doubt minor changes will be made from time to time, this method of extending relief to the patient in labor has reached a stage of general utility and deserves a thorough trial by men doing obstetrics in the smaller towns and rural communities.

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SOME OBSERVATIONS CONCERNING FOCAL INFECTIONS

By James S. Fouche, M. D., Columbia, S. C.

The fact that focal infections and their results in the body having attracted so much attention of the profession, is not surprising when we consider that it directly affects every branch of medicine including the dental surgeon. It is not unlike all other new movements, great results are at first reported and accepted, this having been the case with the Roentgen ray, vaccine therapy, and deficiency diseases which are now so much to the fore. With all these movements, great enthusiasm at first prevailed and wonderful results were reported. Careful examinations of the patients months and years after the treatment had been given showed that in many instances the early hopes were not realized. With some this has often times lead to complete reversal of opinion so that many good measures have been abandoned simply because the first wave of enthusiasm subsided and results hoped for were not obtained, causing discouragement to follow in its wake. However, when most of these

methods of treatment are carefully investigated, it is found that many cases are more favorably influenced, thereby, and therefore the methods should be preserved and applied to selected cases. Now particularly is this true of focal infections. No doubt a study of focal infection and its casual relations to secondary diseased conditions, has been over done. The real thinkers and conservative men of the profession have not been over zealous nor have they attributed all the ills of life to focal infections. It is true, focal infection is often used as a diagnostic blanket which covers up carelessness, loose thinking and other clinical sins. Many patients find it a satisfactory explanation when perhaps there is no focal infection or if so, it causes no trouble. Therefore, the needless sacrificing of teeth, the ruthless tonsillectomies and multitude of sinus operations call for some conservatism by many physicians and dentists. Indeed, it seems that the laity itself has seized on the doctrine with even more enthusiasm than the medical profession and has submitted itself to procedures derived from this doctrine and even demanded them with no less unreasoning faith than it has shown in subjecting itself to the rampant systems of "quackery" in medicine. On the other hand, focal infections must not be neglected and when everything else has been occluded, any focal infections present must receive appropriate treatment and the patient given the benefit of the doubt.

Just what are focal infections? The term has come to mean more or less a hidden infection where they are somewhat limited in their development by their position. Thus, they are most often found in cavities where extension is difficult, for example, roots of teeth, tonsils, gall bladder, appendix, tubes, prostate and so on.

When we consider the effects produced, some few result in direct extension to the surrounding tissues but by far the greatest number produce a metastatic infection through the lymph and blood stream. No doubt there is a decreased immunity to general infection through the slow and constant absorption of toxins. Direct toxin effects may produce pathological changes as arterio-sclerosis. Another

effect which may be a matter of conjecture but seems probable, is that in some cases there may be a sensitization produced by the absorption of bacterial substances and perhaps by their direct toxins which may cause some of the peculiar complaints of patients (as angio-neurotic edema) which often seems to have no pathological basis for an explanation.

Focal infection as we commonly speak of it really means focal infection which has no definite symptomatology, thereby making our treatment necessarily of an empirical nature. Chronic focal infections differing from acute focal infections which have a more or less definite symptomatology as temperature, chilliness, leucocytosis and pain or impairment referable to the organs involved.

A condition having no definite symptomatology, renders it much more difficult to arrive at an accurate diagnosis but the metastatic effects are often more definite for some of the outstanding secondary effects by which we can assure ourselves that a given focus or foci are causing the trouble. (We must remember that there may be multiple foci of infections in which there is a causal relation, but in many it is no doubt a coincidence). Every man of any experience can recount cases where a removal of a focus of infection has been followed by a permanent relief of symptoms. In many cases, the secondary effect may have advanced to such a point that removal of a focus does not show any definite results. According to Rosenow, cholecystitis and appendicitis may be the end results of focal infections elsewhere which in time themselves may become also points of focal infection.

As an aid to the diagnosis in focal infections we must rely on effects which may or may not be direct end results. We therefore, must admit in many instances to have only a conjectural connection between cause and effect. In this connection, however, recent scientific investigations done by Haden of Kansas City and others in regard to the relation of chronic foci of infection to kidney infections and Dr. Crowe of Baltimore in direct blood-stream infections through the tonsils. Haden reports six cases of pyelonephritis in which kidney lesions similar to those from

which the patient suffered were produced in animals by the intra-venous injection or organisms recovered from infected teeth and he states that the fact cannot be too strongly emphasized that a patient with kidney disease of focal origin, the dental radiograph should not be relied upon to eliminate the possibility that the infection has arisen from infected teeth. He bases this fact upon cultures from several hundred pulpless teeth which showed no radiographic evidence of infection and demonstrates that approximately 40 per cent harbored bacteria in sufficient number to be a possible focus of systemic disease. In the six cases that he reported, 28 rabbits were injected with the cultures and 24 or 89 per cent developed gross kidney lesions. In this connection also, I might state that recently in conversation with Dr. Braasch of Mayo Clinic, he stated that they were making it a rule to remove all pulpless or devitalized teeth in patients who have kidney lesions regardless of the radiograph. Last year I had the opportunity to attend a series of lectures conducted by Dr. Richard Cabot at the Massachusetts General Hospital and while in attendance at these lectures, I understood Dr. Cabot to state that he had never known a case of systemic infection, arthritis, endocarditis, and kidney lesions in which dental infections were an etiological factor and I have since so quoted Dr. Cabot but recently feeling that this statement was so much at variance with other authorities I wrote Dr. Cabot asking him if I understood him correctly. His reply is as follows: "What I said last June was that I have never known a case of heart disease reasonably to be attributed to dental infection. I contrasted this with tonsillar infection which I think I have known to lead to endocarditis. There is no question however that dental infection may lead to unexplainable fever and constitutional symptoms and very possibly to arthritis."

In reading a clinic conducted by Dr. J. C. Friedman of Chicago, I inferred that he put little stress on dental infections as a causative factor in general systemic infections so I wrote Dr. Friedman for his opinion in regard to the matter and received the following reply: "In the chronic types of endocarditis, nephritis,

and arthritis the evidence in favor of dental infections is of two types (1) experimental by animal injections of cultures from teeth (2) therapeutic evidence as improvement in these conditions by removal of infected teeth. As to the experimental evidence, I have no right to express a decided opinion never having done any actual work but for reasons too lengthy to repeat here I doubt the validity of such experiments. As to the therapeutic results of removal of teeth I must admit I have been singularly unfortunate in my experience but I have always given the patient the benefit of the doubt and tried not to be dogmatic. Had the teeth carefully examined but my ultimate results have been so meager that I have very little faith in the theory. Nor have I seen any striking results in wholesale removal by others. I realize that I may be totally wrong in this opinion as I certainly belong to the minority but I do believe that many men are more conservative in this matter today than they were ten years ago."

The idea of focal infection has certainly had far-reaching results in causing clinicians to hunt far and wide for a focus of infection in many diseases possibly so related.

The sites of initial focal infection which are most common as we all know are the nasal sinuses, teeth, tonsils and last but not least by far, the prostate in the male and the cervix in the female. I might say here, I was surprised to know a few days ago when a prominent internist had examined clinical records of a large hospital located in one of our medical centers, he found a very complete and careful set of records but there were only a very few cases where the prostate had been examined and these were for some acute prostatic trouble. He went on to say that out of 200 prostatic examinations as a routine in his private office, 85 had clearly infected prostates. This is a large percentage and is a startling fact when we come to consider the incidence of focal infections in other sites. Of these 85 infected prostates, 58 had a history of Neisser infection from 2 to 40 years previously but none had had such an infection for 2 years previously. This brings up the question whether or not any one who has had gonorr-

hoea ever entirely escapes a prostatic infection.

There are other sites of focal infection than those mentioned. The gall bladder, the appendix, the kidney and its pelves, the tubes, the rectum and recto-sigmoid and often the lymph glands are frequent foci of infection. They may have become secondarily infected but are often the initial foci of infection in a given case.

Now as we have tried to show that there are so many sites of focal infection, and there may be multiple foci of infections with a causal relation, but in many cases a coincidence, that chronic focal infections have no symptomatology and the symptoms of secondary results are rather indefinite, would it not be a part of wisdom for any patient applying to some specialist for a radical treatment for some probably focus of infection, to be told that the organ in question is a focus of infection (if such is), but there are many other sites of focal infection which might be playing a part as related to the symptoms complained of and he at least should be given a careful examination for same along with the physical before any radical treatment or operation be done. I cannot but feel that the patient will not only receive better results but will not be disgruntled for having to have his prostate massaged a few times or having a couple of apical abscesses removed following his tonsillectomy, sinus operation or whatever the major treatment was.

In conclusion, I wish to mention a few cases along this line coming under my observation. Sufficient time has elapsed since the treatment of these following cases to justify our conclusion that their relief is permanent.

Case No. 1. Mr. B. R., age 27, occupation barber, came to my office complaining of epigastric pains, practically typical of duodenal ulcer. He stated he had suffered this pain for three years, during which time he had consulted three different physicians, who had told him that he had a gastric ulcer and treated him for same. But he had gotten no better, in fact worse. After making a thorough examination of this patient, including laboratory, X-Ray, cystoscopy with differential Phthalein, a diagnosis was made of infected renal calculi with no function of left kidney.

Markedly hypertrophied and infected tonsils. He was referred to a general surgeon for a nephrectomy, which was done after which he had an uneventful recovery from the operation leaving the hospital three weeks after same, being instructed to report back to me at the end of two months. He reported back as requested, at which time he had gained considerably in weight and stated that his pain in the epigastrium was much better, however, it was still noticeable at times. A urinalysis at this time continued to show albumen and granular casts, very little pus and no blood. He was then advised to have his tonsils removed, which he did. Four months later, the patient was seen again. His weight was more than it had ever been, the urine was negative, and he stated that he was having no pain and was enjoying the best of health. To my mind the tonsils were the primary focus of infection and the kidney was the secondary focus. The removal of the kidney improved the patient, but the removal of the primary focus or the tonsils was required to cure him. May I digress here a moment to call your attention to the fact that the proper handling of this case required the services of the Internist, Roentgenologist, Urologist, Pathologist, General Surgeon, and the Throat Specialist. This only serves to emphasize the necessity in the scientific and proper handling of these cases, how dependent the men in special lines of work are upon each other.

Case No. 2. Mr. X. age 32, a traveling salesman, came in requesting that I give him some relief. I found he was suffering from a severe iritis which he stated he had been having attacks of every three or four months for the past several years. That he had been and still was under the treatment of a prominent Oculist of a neighboring city twice the size of Columbia (not Charleston). He showed me two small vials containing drops which he was using. I made a careful examination of him including Wassermann test (which he stated had not been done) and found besides the acute iritis, a definite trace of albumen and granular casts in the urine, also an occasional pus cell. Blood pressure, systolic 176, diastolic 96. Many decayed molar teeth, some were

broken off even with the gum. The gums were slightly swollen, soft and spongy. I gave him some aspirin and advice, and referred him to a Dental Sureon to whom he reported the following day when several dead roots were removed and three of the largest dental pus sacs that I have ever seen were dissected out of his gums. Three days later, Mr. X's eyes were much improved, and he went out on the road on the fourth day with instructions to continue the drops and report to his Oculist. Eighteen months later I saw Mr. X and he stated that he never did report back to his Oculist because his eyes got well and remained so. Blood pressure at this time was 140-84. Urinalysis negative. Patient had gained considerably in weight.

Case No. 3. Young man, 24 years of age, bank clerk, suffered with rheumatic arthritis in both ankles and left knee joint. This condition had troubled him over a period of three years or more during which time he had several teeth and a pair of very suspicious looking culates. In spite of all this, his condition gradually grew worse and he became more or less despondent. He then left the bank and tonsils removed. Slightly infected prostate had received treatment along with a peck of saliwent a few miles out to his father's farm. He had consulted me several times lately about taking some kind of electrical treatment in which I offered him no encouragement. A few days later, while riding on a load of hay, the team was struck by a bolt of lightning, killing the mules and knocking the young man clear out of the wagon. His rheumatism did not improve, but he did not bother me any more about electrical treatment. About six weeks later I was hurriedly called to see him and found him suffering with a definite acute appendicitis. He was removed to a hospital and an adhered appendix full of pus, not ruptured, was removed. Two months later, his rheumatism was so improved that he resumed his position in the bank and has been there ever since except for what time he fulfilled a little engagement for Uncle Sam over in France. While the appendix as the focus of infection in the causation of his arthritis is only a matter of conjecture, we cannot say it

was not since its removal has given eight years of relief of symptoms.

DISCUSSION

DR. J. H. CANNON, Charleston:

The question of focal infections, as Dr. Fouche says, is one with which every man in any line of medicine has to deal. There is a good deal of disappointment in regard to treating foci of infection, for the reason that often we fail to get the results that we believe we should get, if the focus of infection were the cause of the trouble for which we are treating the patient. I recall, and perhaps Dr. Rhame will remember, a case at the Naval Hospital—a boy of perhaps twenty or twenty-five years of age who was admitted to the genitourinary ward with arthritis, because of the history of gonorrheal infection several years previous. He was kept there several weeks, and meanwhile treated with the usual salicylates, etc. After being there for two or three weeks, with failure to demonstrate gonorrhea, he was changed to the medical service. I made no change in the treatment, but referred him for X-Ray examination, and found that he had several very badly infected teeth. Those were removed, and, to everybody's surprise, he was out of bed and on crutches in two or three days. Previously he had not been able to be up at all. He was soon given thirty days' sick leave and went home, coming back at the end of that time in apparently good health. Soon, however, he developed a most violent iritis. In view of the fact that we had cleaned up his teeth, as we thought, we did not go over them again. He was confined to a dark room and had to have morphine. The eye man suggested that we have his teeth gone over again, and to our surprise it was found that a tooth adjacent to one that had been removed was badly infected. That was cleaned up, and in three days the iritis disappeared. I had never seen such striking results before.

On the other hand, when we do not get such results, we have to remember what Dr. Fouche says, that when the original focus has been removed, there may be a secondary focus keeping up the trouble. We have to remember, too, in arthritis, that we have pathology in the joint or in the synovial structure that keeps up the symptoms.

DR. G. McF. MOOD, Charleston:

I am very much interested in focal infection. Sometimes it is extremely hard to locate. In a good many cases, I firmly believe, the trouble is due to primary foci of infection, and the reason why the patients do not get well is that we fail to discover the primary focus, or else

the primary focus, by the time the case comes into our hands, has established one or several secondary foci. The proof of focal infection, as reported by Rosenow, interested me very much several years ago, and I undertook to substantiate this in two instances. In one of these I selected a case of duodenal ulcer which had been operated on one or more times, with recurrences. We recovered a streptococcus from the feces, which, converted into an alcohol-ether extract, was applied to an abrasion on the skin. This showed a decided irritation. A culture was then injected into animals, and cultures made from the blood, from the urine, and from the duodenal contents. I do not remember just the percentage, but if I correctly recall this series of cases, the percentage was 45 of localizations. In other words, we recovered the streptococcus in the duodenal contents in 45 per cent in this series. I should say in this 45 per cent

of cases there was very decided acute duodenitis. In one of the animals there was a very hemorrhagic area in the duodenum, and nowhere else. The other case was one of chronic cystitis in the wife of one of the professors. The same procedure was instituted, and one of the professors in the college substantiated my findings. We found the organisms localised only in the urine, with a distinct cystitis, with no duodenal or other irritations, in 65 per cent of the animals used in this series. These two cases, of course, do not prove anything, but still they are very suggestive. I constantly look for focal infections. I believe a great many of our diseases, our serious conditions, are due to focal infections. While in a great many cases we do not find the focus, I believe if we study our cases more thoroughly and carefully we could find them.

NERVOUS AND MENTAL DISEASES

By J. M. Beeler, M. D., Columbia, S. C.

EARLY SYMPTOMATOLOGY OF MENTAL DISEASE

In the July issue of the Journal we discussed the early symptomatology of mental diseases, those occurring during the period of childhood and puberty that would indicate the beginning of some mental condition. In this issue we will consider those symptoms occurring during middle and late life that are suggestive of the beginning of mental mal-adjustment.

Adolescence: This period is one in which the individual goes through the greatest number of mental crises. Profession or occupation must be chosen, work must be obtained, marital relations are usually assumed, there must be a breaking away from home ties and families must be cared for and reared. During this period most mental diseases develop.

The behavior symptoms we most frequently see are the failure on the part of the individual to adjust himself to his environments, characterized by business failure, inability to hold a position, frequent change of occupation, and lack of judgment and etc., this developing in one who before had been stable and been able to make complete adjustment to his surroundings. The mental changes come on slowly, and are manifested by a gradual change in the patient's personality, a replacement of the natural disposition by a state of apparent indifference, mental sluggishness, loss of interest in friends, family, school, play or work. In the beginning of the trouble the patient is often credited with laziness or wilful indifference. The patient may become seclusive, indifferent, shunning company, and may be markedly changed in his habits as to food. Attempts to arouse the patient from this state of indifference are usually met with outbursts of irritability or violence. There is often a change in the patient's personal habits. They become extremely careless of their appearance

and person. Along with these symptoms, the patient may complain of headaches, dizziness, a sense of fatigue on slight exertion, vague bodily pains, insomnia, and depression; and it is usually these vague physical symptoms that bring him to consult the family physician.

Some types of mental disease developing during this age are first noted by a prolonged period of excitement or depression beyond normal, characterized by over activity, restlessness, irritability and a lessening or removal of the normal inhibitory influences; the individuals have a feeling of happiness, are talkative, restless and at times noisy and disturbed. Those that are depressed show mental retardation, cry easily, are slow in their talk and action and usually sleep and eat very little. They complain of loss of interest in their work, a depressed and worried feeling with a fear that something is going to happen to them.

Prolonged inability to sleep without physical cause is always indicative of a mental disturbance and the too free use of hypnotics usually increase the condition instead of relieving it.

Sensitiveness and fear without cause, over-religiousness and unexplainable emotional reactions, laughing and crying without cause should indicate the need of a complete mental examination. Hallucinations of hearing, sight, smell, etc. and delusions against various people may be present. These symptoms usually come on later in the mental cases. The marked increase or loss of sexual desire or abnormal sex habits in one at this age should be investigated from the mental standpoint.

The puerperium is the next physiological crisis in women. During gestation, especially in the last three months, there are important circulatory changes and constantly augmenting reflex uterine influences which react on the brain centers which must adjust themselves to physical sensations, tinged with emotional ideas, maternal, apprehensive, and often especially in cases of illegitimacy, painfully de-

pressive. Albuminuria, uremic states and eclampsia may become manifest, while parturition may endanger mental stability through intense and prolonged pain, which may pass into a condition of mania and delirium. During the postpartum stage, hemorrhages, absorption of septic material, producing general infection and toxemia may produce a psychosis. Finally during lactation, as a result of general nervous exhaustion, malnutrition, anemia, loss of sleep, undue solicitude for the child, etc., may bring about various forms of exhaustion psychoses. The time will come when the mental condition of the pregnant woman will be given as much attention as we now give the physical body. Then we shall see a decrease in the number of mental cases following child birth.

Climacteric: The involutional period, while a physiologic crisis in both sexes, is especially important in the female, and during this period there frequently develops mental trouble, characterized usually by an agitated depression.

The early symptoms are a gradual loss of interest in the family, inability to sleep, sensitiveness beyond normal, a feeling of dread with vague fears. Self-accusatory ideas appear, and there are many religious ideas usually of a self-accusatory type, and the patient says she feels like she has committed the unpardonable sin

or that her soul is lost. The patient becomes emotional, cries without cause, frequently walks the floor and wrings her hands and is unable to control herself. There is a gradual loss of memory and these may be periods of amnesia. These cases are usually suicidal and should always be closely observed and the family acquainted with the condition.

Senility: The final crisis of life is that of senility. During this period, there are universal changes involving osseous, muscular, vascular, glandular and nerve tissue and in these changes waste exceeds repair. An important change frequently takes place in the general vascular system; the arteries become sclerosed; often the cerebral vessels show atheromatous degeneration; and thrombosis and hemorrhage frequently in the brain are the cause of mental disturbances.

The early symptoms most frequently noted are forgetfulness, especially for recent happenings, irritability, restlessness, especially noted at night, lack of emotional control with crying spells and fits of temper. The patient gets lost easily and there are usually periods of amnesia.

The physical symptoms are those due to age and disturbance of circulation. Clinics have been held regularly at Anderson, Spartanburg, Greenville and Columbia.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

RESPONSIBILITY OF THE PHYSICIAN AND LAYMAN IN PUBLIC HEALTH IS PERSONAL

The editor of a great magazine was recently asked the question, "What in your opinion is the outstanding achievement of the present century so far?" His answer was, "When the final history of the first twenty-five years of this century is written, the outstanding achievement will be that of the saving of human life and the increasing of human efficiency, through the intelligent application of the laws of public health." There is something in this answer for the citizen, the public official and the statesman to ponder. Taxes may rise or fall, tariffs may come or go, governmental panaceas may be promoted or discarded but the simple, fundamental laws of hygiene, health and physical well being go on unchanged by act of legislature or congress.

There is sufficient scientific knowledge and experience now at hand if intelligently and universally applied, to prolong the average of human life many years and to make all these years much more abounding and fruitful. The average American life expectancy is now about fifty years. Twenty-five years ago, this average expectancy was about thirty-five years. There is no insurmountable obstacle to prevent this average being increased by fifteen more years within the next three or four generations. What is needed is not more man-made health laws and regulations, but a dynamic, individual sense of responsibility for the intelligent use of health knowledge and health experience by the individual in his own life, in the home, in the community and in all the activities and contacts of our social order.

The advances made in the prevention of communicable disease, and in the conservation and improvement of physical health, tremendous as these advancements have been, represent more the things that have been done for the

individual than the things the individual has done for himself. Public health up to the present time has been largely a demonstration of what can be done for the individual, the group or the community by official and voluntary agencies. In other words, public health to the present time has been negative rather than positive, static rather than dynamic with the general public as beneficiaries rather than participants. We have now come to the time when future progress and achievement are to be measured by the zeal and intelligence of the individual in practically applying his health knowledge, rather than by the activity of the health department, except in health leadership, or of the legislature, except in the enactment of wise laws that give expression to the best of research and experience. Sanitary engineering can make a water supply safe, but the individual or the community can by a single careless act or insanitary procedure, transmit infection, sickness and death to all who drink of the water. Quarantine will protect against the known case of communicable disease, but a single unknown case or a single carrier of the infection of the disease may easily become the center of distribution for a widespread epidemic. Man is the originator and distributor of his own diseases. Man is the architect and builder of his own physical structure, at least after that physical structure is given to the keeping of his own care and intelligence. The British Health Insurance experience shows that in England and Wales an average of 14,476,000 week's work are lost each year through sickness of workers or the equivalent of 278,000 persons lost from work constantly throughout the year. Most of this is due to minor sicknesses, headaches, impairment of digestion, decayed teeth, common colds, neuralgia, tonsillitis, rheumatism, etc. Most of these are preventable through attention to personal hygiene and observance of the laws of bodily well being. American Industry doubtless pays

a like toll to negligence or personal hygiene and "Ignorantia Hominis". Public health is purchasable, but the responsibility of the indi-

vidual for the protection and advancement of the health of himself, his family, his neighbor and his community is personal.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

FRACTURES OF THE SKULL

Rand & Wilson, in Archives of Surgery, September 1925 analyze 171 proven cases of fracture of the skull.

Fracture of the vault is easier to diagnose than fracture of the base. This may be done by correct interpretation of the clinical symptoms, by means of the X-Ray or by cutting down into the bone itself.

Of the 171 cases, 145 were linear and 26 depressed. One hundred and five occurred on the right side and sixty six on the left.

Linear fracture may affect any portion of the skull, from the vault to the base. It may extend in any direction and frequently involves more than one bone.

A depressed fracture is more apt to affect a single bone than is a linear fracture.

In the entire series there were 44 deaths, or a mortality of 25.7 percent.

In 1,000 cases at Cook County Hospital, Chicago, the mortality was 53 per cent. In 530 cases at Boston City Hospital the rate was 44 per cent and others have reported a lower death rate in a small series of cases.

All deaths occurring after seven days were due to complications, meningitis (6) septicemia

(1) or brain abscess (1). Elderly persons stand fractured skull surprisingly well.

Every head injury is provocative of some shock. Shock caused more deaths than did medullary compression.

Many of the cases herein reported were complicated by one or more fractures in other bones of the body. Their meningitis patients were all comparatively young (11-32 years of age.)

Operations were performed in 38 cases, the resulting mortality was 47.4 per cent.

The authors rarely operate within the first 24 hours. This permits localization of symptoms, the disappearance of shock and the determination of the pressure or absence of compression phenomena.

The ophthalmoscopic findings within the first 10 to 20 hours are of less value than spinal pressure readings.

When doing decompression operation and the brain is found to be edematous, they advocate drainage.

For clot formation-operate. They frequently use local anesthesia. Repeated instillations of magnesium sulphate solution into the rectum tend to reduce intra-cranial pressure.

DERMATOLOGY AND SYPHILOLOGY

J. RICHARD ALLISON, M. D., Columbia, S. C.

THE ETIOLOGY OF MALIGNANT NEW GROWTHS

By W. E. Gye, M. D., Edin.

Abstracted from the *Lancet*, 109: (Vol. 11 of 1925) 109-117 (July 18), 1925

In the above issue a very important discussion on the etiology of cancer is described. This work has been widely circulated in the lay press. In many instances, it has been heralded as a new discovery and a cure of cancer. While the importance of Dr. Gye's work cannot be over-estimated, it is unfortunate that the lay press should publish the news in such a way as to cause the people to believe a cure for cancer has been discovered, for such is not the case.

In 1911, Dr. Rous of the Rockefeller Institute made a very important advance in the study of cancer. He experimented with Sarcoma in chickens, mice and other animals and determined that the Sarcoma could be transmitted from one animal to another by a filtrate passed through a Berkefeld filter. He therefore established fairly clearly that there was a filterable agent which caused the particular cancers he studied. Rous and his collaborators brought forward strong evidence in favor of this agent being a filterable virus and ultramicroscopic microbe.

Dr. Gye gives Dr. Rous full credit for his work and takes up the study of cancer by first going thoroughly over Dr. Rous' work and confirming all of his experiments. He then endeavors to determine the nature of this filterable virus or agent. After many experiments carried on over a period of years, experiments on animals which only can be understood by a thorough study of his article on the subject, he came to the conclusion that the agent was a filterable virus.

In the course of his experiments, he found that the tumor or cancer material treated in a certain way by certain re-agents and then

passed through a fine filter, as the type of the Berkefeld filter, produced a filtrate which by itself could not produce the cancer. This agent he called the first specific factor. This agent he concludes is the living virus. In his experiments he has separated a second specific factor obtained from tumor extracts which he claims acts upon the cell, ruptures the cell defenses and enables the virus to infect, thus enabling the virus to produce the cancer. He came to this conclusion by injecting the first specific factor into mice without results and the second specific factor into mice without results but when both the first and second specific factors were first treated together and then injected, the cancer was produced. These experiments have led him to believe that the cause of cancer is due to a filterable virus which is ultra-microscopic in size and which must be activated by a second specific factor occurring in this cancer itself.

This filterable virus cannot be detected by any known microscopic appliances in use today. Therefore, in conjunction with the above work, Mr. J. E. Bernard has constructed a special microscope for the examination of filterable viruses and describes this instrument and the difficulties in an article in conjunction with Dr. Gye. This filterable virus is so small that any staining material will cause it to lose its identity; nor can it be seen by the ordinary light waves. By means of a specially constructed instrument using ultra-violet light and the dark field principle, he has been able to discover certain spheroid bodies and study their characteristics, believing them to be colonies of this filterable virus.

So far then the work done demonstrates that there is a filterable virus which has to be activated in order to cause the disease and which at the present time cannot be well studied by the methods we have at hand and the further development of this work seems to depend upon some instrument which will enable one to see and study this filterable virus.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

THE RELATION OF DIET TO THE NON-SURGICAL TREATMENT OF DISEASES OF THE EAR, NOSE AND THROAT

There is always something new, both in treatment and etiology. For several years the following has been becoming more evident.

Dr. D. C. Jarvis, in the "Annals of Otology, Rhinology and Laryngology" for September, 1925, page 759, says:—

1. There seems to be an increase in size and redness of the turbinates and a subacute laryngitis when there is an excess of sweets in the diet. Why the nasopharynx and Pharynx are skipped I do not know.

2. There seems to be a catarrhal discharge from the nose and throat, such as we often meet with in cases of impaired hearing when there is a lack of the proper amount of vegetables in the diet.

3. There seems to be a granular condition

of the posterior pharyngeal wall when there is an excess in the diet of foods made from flour, such as bread, pastries, etc.

4. There seems to be an increase in the amount of lymphoid tissue when there is a lack of the proper amount of fats in the diet.

Of course, these observations would be of no avail unless a change in the diet brought about a change in the condition in the nose and throat. The question then naturally arises as to the length of time necessary before one sees results in the upper respiratory tract. The answer seems to be that from ten days to two weeks are required. Returning to our fundamentals, one wonders if inheritance plus diet does not represent suitable soil, and the inability of the upper respiratory tract to adapt itself to sudden changes in respiratory environment does not represent suitable preparation of the soil. With these two fundamentals fulfilled in the individual, may not the growth of micro-organisms be possible?

SOCIETY REPORTS

PROCEEDINGS OF THE REGULAR MEETING
OF THE MEDICAL SOCIETY OF SOUTH
CAROLINA, HELD AT ROPER HOSPI-
TAL, OCTOBER 13, 1925, AT 8:30
P. M.

The meeting was called to order by the President, Dr. C. P. Aimar.

Present: Drs. Aimar, Baker, A. E., Jr., Baker, B. R., Ball, Banov, Beech, Boette, Bow-ers, Brewer, Buist, Burn, Cain, Cannon, Cathcart, Chamberlain, Finger, Jackson, Jagar, Johnson, F. B., Johnson, W. H., Kollock, McCrady, Maguire, Martin, Mood, O'Driscoll, Phillips, Rhame, Rhett, W. M., Rhett, W. P., Rutledge, Scott, Smith, W. A., Smith, J. E., Sparkman, Taft, A. R., Taft, R. B., Wilson, Robt. 38.

Guests: Dr. Hugh Wyman of the Medical College. Members of the Roper Hospital House Staff.

The minutes of the Regular Meeting of June 23rd and of the Special Meeting of July 9th were read and confirmed.

Under letters of applicants, the Secretary presented the names of Dr. Pierre G. Jenkins, Dr. Hugh E. Wyman, Dr. Ernest C. Baynard, and Dr. J. Alexander Meldau. These applications were properly endorsed and accompanied by initiation fees. The President announced that these letters would be referred to the Board of Censors for report.

Under Reports of Committees, Dr. G. McF. Mood, Chairman of the Board of Commissioners, reported that the Board had purchased the Finger property situated on the tract of land on Calhoun Street directly opposite the Nurses' Home and the Riverside Infirmary, to be used as temporary quarters for the nurses. He stated that these quarters are badly needed, as the Nurses' Home is overcrowded. The need for these addition quarters is shown by the following statistics:

Number of students in school, October 1st (old students)	48
New students entered September 24th	14
Total pupil nurses in School	62
Graduates on General Duty	6
Superintendent, Supervisors and Instructor	8
Anesthetist (nurse)	1
Total nurses housed	77
Number of pupil nurses required to properly staff the Hospital	90
Supervisors and Anesthetist necessary to properly Staff the Hospital	10
Total number required to properly staff the Hospital	100
Present Nurses' Home can accommodate (crowded)	50
Present Nurses' Home can accommodate (comfortably)	40

Now using rooms first and second floor Riverside for.....	20
Finger House (large) can accommodate	23
Finger House (small) can accommodate	10
Total rooms in two Finger houses	17
Purchase price Finger property	\$16,500.00

Dr. Mood stated: "The present Nurses' Home and Finger houses are not constructed for use as a modern Nurses' Home; however, the combined properties can be used for housing the nurses for possibly the next five years. It is our hope by that time that we will have sufficient funds in hand to construct a modern Nurses' Home to accommodate 100 nurses."

Dr. Cathcart moved that the report be received as information and spread on the minutes, and that the deed for this property be turned over to the Board of Finance. Seconded by Dr. Robert Wilson. Carried.

Dr. Geo. McF. Mood, Chairman of the Committee for the Investigation of the Infant Mortality of Charleston, made the report for this Committee, the latter being composed of Drs. Mood, J. M. Green, and M. W. Beach.

At the conclusion of this Report, the Scientific Program was called, as it was 9:00 P. M.

Medical Case Report was made by Dr. T. H. Martin. A case of aneurism of one of the smaller branches of the abdominal aorta. This report was discussed by Drs. Maguire, Jagar, and Ball.

Surgical Case Report was made by Dr. F. G. Cain—Gunshot wound of the abdomen, necessitating a resection of a large portion of the small intestine. Discussed by Dr. Buist, who praised Dr. Cain for his excellent work.

The paper of the evening, on "Angina Pectoris", was read by Dr. Robert Wilson. This was discussed by Drs. Buist, O'Driscoll, Maguire, Phillips, Chamberlain, Jagar, Cannon, McCrady, Dr. Wilson closing.

At the conclusion of the Scientific Program, the business session was resumed.

Dr. Cathcart moved that copies of the Report of the Special Committee on Infant Mortality be made by the Secretary, distributed among the members, and that this report be taken up as a special order of business at the next regular meeting of this Society. Seconded. Carried.

The Secretary reported that Dr. F. R. Price had transferred his membership to the Dade County Medical Society of Florida. The Secretary also reported that he had had the historical papers, presented by Dr. Robert Wilson to the Society, framed and would turn them

over to the Hall Committee to be hung in the Society Hall.

A letter from Mr. F. O. Bates, Superintendent of the Roper Hospital, was read by the Secretary. In this letter Mr. Bates stated that, at a joint Staff Meeting, it was requested that the Medical Society take up for discussion the question "whether or not subcutaneous erysipelas is contagious". On motion, this letter was referred to the Program Committee.

The Secretary read the following letter from Mr. Lionel K. Legge, Chairman of the Board of Health and Welfare of the City of Charleston:

"Charleston, S. C., September 26th, 1925.

"The South Carolina Medical Society,
Dr. C. P. Aimar, President,
Charleston, South Carolina.

"Gentlemen:

"With a view of removing the Health Department of this city as far as possible from political influence, the Board of Health and Welfare has recently recommended to the City Council the amendment of the Ordinance under which this Board is now operated in the following particulars:

"1. By removing the Mayor as an ex-officio member of the Board, and substituting in his place the President of your Society.

"2. By entrusting the Board of Health and Welfare with the election of the City Health Officer. (This election is at present in the hands of the City Council).

"This Board would appreciate an expression of opinion from your organization as to the advisability and desirability of the proposed changes, not only because you are directly concerned in one of these changes, but also for the reason that your organization is, and should be, vitally interested in the administration of this very important department.

"The suggestion that the President of your Body be, ex-officio, a member of this Board, is a suggestion, merely. It may be that it would be more advisable to have your Society designate each year, or at stated intervals, one of your members as a member of this Board, and we should be very glad to conform to your wishes in this regard.

"As the proposed bill is now in the hands of the Committee to which it was referred, and will shortly come before the City Council for the second reading, I would appreciate it if you would have the matter brought to the attention of your organization and advise me further at your earliest convenience.

"Yours very truly,

(Signed) Lionel K. Legge,
Chairman,
Board of Health & Welfare."

It was moved by Dr. Buist, in that the Chairman of the Board had requested action on two matters, that these be taken up separately. Carried.

The first item was taken up,—namely, that this Society approve of the bill substituting the President of this body for the Mayor in the proposed amendment to the ordinance. Dr. A. J. Buist moved that this Society comply with the request made by the Chairman of the Board of Health and Welfare and express its willingness to place the President of this Society as an ex-officio member of the Board of Health and Welfare. Seconded.

Dr. Cathcart moved to amend Dr. Buist's motion to the effect that a member representing this Society be elected as ex-officio member of the Board of Health and Welfare instead of the President. After discussion by several members,

the motion as amended by Dr. Cathcart was passed by a vote of 18 to 7.

The second item of the letter from the Board of Health and Welfare asked the endorsement of this Society to an amendment to the present city ordinance, placing in the hands of the Board of Health and Welfare the election of the City Health Officer. Dr. Sparkman moved that this Society place itself on record as strongly endorsing this amendment to this ordinance. Seconded. Carried.

Dr. W. A. Smith moved that the President of this Society write a letter to the Chairman of the Board of Health and Welfare, setting forth the action taken by this Society. Seconded. Carried.

A letter from the Director of the Bureau of Vital Statistics of the State Board of Health was read by the Secretary, pointing out the fact that in South Carolina the physicians were only reporting 86 per cent of the births in the state and urging every member of this Society to promptly report births. This letter was discussed by Dr. Kollock and Dr. Banov. Dr. Banov pointed out that this state had lost its position in the Birth Registration Area as a result of failure to report births.

The Secretary stated that the Program Committee was now making out their program for the ensuing fiscal year and requested that members who desire to have a place upon it notify this committee as soon as possible.

Under Miscellaneous Business, Dr. Kollock brought to the attention of the Society the new automobile insignia which has been placed on the market by the American Medical Association.

Dr. Sparkman stated that one of the members of this Society had been seriously ill, and was now convalescing at the Riverside Infirmary. He stated that this gentleman occupied a high position in the profession and had done valuable service for the Society, for the community, and for the state. He then moved that the President write a letter to Dr. T. Grange Simons, expressing the affection and esteem of the members of this Society and wishing him a speedy restoration to health. The motion was seconded and carried by a standing vote.

The Secretary brought to the attention of the Society the approaching meeting of the Association of American Medical Colleges to be held in Charleston on October 26th, 27th, and 28th, and asked if the Society desired to take part in the entertainment of the distinguished guests who would be in this city at that time. Dr. Kollock moved that the following committee be appointed to arrange a program of entertainment and report back to this Society: Drs.

Aimar, Cathcart, and Mood. Seconded. Carried.

The President announced the death of Dr. James Cash Waring, a member of this Society, which had occurred during the summer. It was moved, seconded, and carried that the President

appoint a committee to draft suitable resolutions on the death of Dr. Waring.

There being no further business, the Society adjourned.

Dr. W. Atmar Smith, Secretary.

Approved:



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NO. 12

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EDITORIAL

THE NEW YEAR

The first order of business of the New Year will be our Legislative program. It will be one of watchfulness. Dr. Marion H. Wyman, Dr. Robt. Wilson and Dr. L. O. Mauldin constitute our committee. They will be supported strongly when necessary we are confident.

The Sumter meeting has been uppermost in our minds for some time and much work done but we want to complete the details early in 1926.

1. Periodic Health Examinations will be stressed.

2. A shorter program is urged.

3. More clinics have been suggested.

The committee in charge of local affairs at Sumter is an able one as follows: Dr. C. J. Lemmon, Chairman; Dr. H. M. Stuckey, Dr. Milton Weinberg, Dr. H. A. Mood and Dr. H. L. Shaw. Sumter has one of the best societies to be found any where. Dr. Shaw has

been honored by the State Association as have few men but he serves on in the quiet efficient capacity of County Secretary "in season and out of season." Many ex-presidents of the State Association continue their work, we are glad to say. Dr. H. M. Stuckey is the new president of the Sumter County Society and he will see to it that nothing be left undone to make the Sumter meeting successful so far as his office is concerned. The committee on Scientific work of the State Association consists of Dr. J. H. Cannon of Charleston, Dr. LeGrand Guerry of Columbia, and Dr. J. W. Jervey of Greenville with the President and Secretary. This committee has already held a meeting and mapped out much of the program for 1926.

SEND IN TITLES EARLY

Inasmuch as a shorter program will be published to be read at the Sumter meeting the

Secretary is ready to receive volunteer papers so that proper space may be given to them before the committee declares the list complete.

Unannounced titles should be avoided on the provisional program.

It is not too early to decide on a subject now if the paper is to be a worth while contribution.

HOLIDAY GREETINGS

The South Carolina Medical Association has had a successful year. The County and District Societies have shown increasing interest in scientific progress. There is a spirit of harmony made more conspicuous by the zeal of our President Dr. R. S. Cathcart of Charleston who has been indefatigable in visiting different parts of the State and appealing for larger and better things in organized medicine.

The Journal took a big step forward in 1925 by enlarging the size of its pages and putting on a very attractive cover. True the expense is greater, but no one will want our journal to fail to measure up to the best in State Medical Journalism.

We are proud of our success in an increase of membership, thus being eligible for two delegates to the American Medical Association in 1926. The council of our association is made up of an earnest body of men always alert for serving the membership in any way possible. No state we believe has a better functioning council. In the main the county society officers have done good work as the programs show in most instances. The State Board of Health and its various ramifications is a magnificent enterprise known throughout the nation for aggressive constructive policies. The State Board of Medical Examiners conscientiously strives to give to the State competent physicians and nurses.

The Medical College of the State of South Carolina continues its splendid work on a high

plane and has the reputation of doing more with less money than almost any medical school in the United States. The splendid status of this school attracts now far more applicants for admission than can possibly be accommodated. It should have a very much greater appropriation. All of these wonderful achievements have been attained we believe by the unique and almost unprecedented influence of the South Carolina Medical Association on Medical and Public Health affairs in South Carolina. In comparison with most other states our situation is ideal. There is an extraordinary confidence in the integrity of the medical profession by the people of South Carolina. Malpractice suits are negligible here. The cults? Yes we have a few—always have had a few but the problem has never been a tithe of that in other sections of the country. Our law making bodies it is true do not seem always to understand and act upon our view point but looking back over the years we have fared well at their hands.

While in some localities there may be a measure of financial depression yet by and large the profession is prosperous. Our observation leads us to acknowledge that our doctors as a rule have comfortable homes, ride in good cars, have well equipped offices and are educating their children at the best schools and colleges. To those of us who have watched the trend in medicine for over thirty years there comes the thought that we have made spectacular advances scientifically and financially. As yet medicine is an altruistic profession. Let us hope it will never be otherwise. As such it is not a basic factor in the commercial world. Let us hope also that no other inspiration shall activate the medical profession than that taught by the Great Physician long, long ago. Our readers may think this an optimistic Editorial. We intend it to be. We feel justified in offering our most hearty good wishes and felicitations to the profession of South Carolina. May you have the happy Christmas you so richly deserve!

ORIGINAL ARTICLES

PROSTATISM

By James J. Ravenel, M.D., Charleston, S. C.

This is not intended as a critical survey of the subject, but rather to try to place before you a comprehensive outline of just what it is, and how and why the end results obtain.

The term prostatism is preferable to prostatic hypertrophy as it is more comprehensive, including not only the enlargements of the organ but the sclerosis of it as well. In the adenomatous type which comprises 90 per cent of the cases glandular hyperplasia is in excess with fibrous hyperplasia present to a small degree. In the sclerotic type which comprises the other 10 per cent. the fibrous hyperplasia is in excess with the irregular glandular hyperplasia only of minor consideration.

The end results of the two are identical—that is urinary stasis.

Prostatic hypertrophy is a misnomer for in reality it is not a hyperplasia of the gland itself but an adenomatous change (hyperplasia of the glandular element). As the adenomatous enlargement occurs it compresses the gland substance into a thin layer against the true capsule.

After all there is no real satisfactory term to designate the general condition of urinary stasis due to non-malignant and non-inflammatory changes in the prostate.

The symptomatology of prostatism is due to the urinary stasis resulting from it—the prostate in itself producing no symptoms.

There is very little known about the etiology. Aside from the usual predisposing factors such as sexual excess, over indulgence in alcohol, masturbation, protracted habit of withdrawal, horseback riding, long continued sedentary habits and constipation, several ingenious theories have been advanced.

The theory of arteriosclerosis which supposes that it is a part of a general arteriosclero-

sis has been overthrown by the fact that sclerosis can exist without prostatism and prostatism without sclerosis.

The fibromyomatous theory is based on a biological analogy between the uterus and the prostate, and a histological analogy between fibromyoma of the uterus and prostatism. This theory is exploded by the fact that the prostate is analogous to the uterus neither in development or structure of formation; and prostatism is not fibromyomatous but adenofibromatous.

The theory of sexual senility—The function of the testicle like that of the ovary is two-fold—reproduction of the species and the development and preservation of the secondary sexual characteristics of the individual. The need for exercise of the latter ceases when full adult life is reached but it is possible that the activities of the testis and ovary in this respect do not cease coincidentally and that the hypertrophy in closely allied organs like the uterus and prostate are the result of this misdirected energy. These facts cannot be denied but the theory based on the false prostato-uterine analogy and the implied power of the testicle to cause prostatism, and devised to defend the cause of castration as a remedy for prostatism, is an assumption not borne out by facts.

Chronic congestion has been considered the chief predisposing cause of the disease. Pelvic congestion such as that caused by gormandizing and a sedentary life has been suggested as an etiological factor.

The inflammatory theory advanced by Ciechanowski and Liechanowski allege that prostatism, whether adenomatous or sclerotic is essentially the same; that it is due to obscure inflammatory processes originating within the stroma of the gland and that these changes in the stroma of the prostate of old men are the same as those found in the prostate of young men who had suffered from gonorrhoeal prostatitis. Hence the corollary that perhaps the prostatism of old age is due to the gonorrhoea

of youth. This suggestion tentatively set forth has been seized upon by some writers as an unavoidable inference and flaunted to the shame of the large and respectable army of prostatists. Clinical observation does not bear out this theory.

At present the most acceptable and accepted theory is the pathological one which attributes the adenomatous changes to a true neoplastic process and the sclerotic changes to inflammation.

As the adenomatous prostate enlarges the prosterior urethra lengthens and becomes distorted, especially when the lateral lobes are involved. The internal urethral orifice is forced open and elevated above the floor of the bladder by a pushing up of the enlargement, either into the bladder as a middle lobe enlargement, or the bar formation when the whole gland enlarges. The posterior surface of the gland bulges and the palpating finger in the rectum detects a gland the size of a plum or larger.

The sclerotic prostate contracts down and produces the elevation and obstruction by a true contracture of the neck of the bladder.

Whatever the type of prostatism there is a slow but progressive obstruction at the vesical outlet resulting in a gradual increase in the residual urine. Sudden complete retention may ensue at anytime, or a large retention with overflow may follow.

Due to the straining at urination to overcome this obstruction the bladder wall at first becomes hypertrophied and later dilated and thinned out. From the back pressure incident to the retention and increased intravesical pressure the ureters and kidney pelves dilate making a to & fro flow of urine between the bladder and kidney pelves. With this increased intravesical pressure there is also an increased vascularity of the renal pelves, many of which are thin walled and supported largely by the column of urine from below. This dilatation of the upper urinary tract may continue until the kidneys become large hydronephrotic sacs with the parenchyma compressed into a thin layer against the true capsule. The capillary and venous flow in the mucous membrane of the bladder, ureters, kidney pelves and urinary

tracts of the kidneys are impeded by this pressure and this demands a higher blood pressure to force the blood through the secreting structures of the kidneys.

Sudden release of this pressure may bring about one of two things: A flood of fluid through the chronically dilated portals, or the closure of these portals by the dilated blood vessels mechanically obstructing them. Blood pressure will fall suddenly and perhaps to an uncomfortable degree on sudden release of this pressure due to a now lack of demand for force to drive the circulation through the secreting apparatus. The hemorrhage which often follows at this time results because of congestion and lack of support to the surplus thin walled vessels previously mentioned.

This study of the hydraulic balance by Van Zwalenburg has not only impressed upon us the importance of a thorough understanding of urinary stasis, but has given us the keynote to the successful preoperative treatment of the prostatic—that is gradual decompression of the chronically distended bladder.

VALUE OF X-RAYS AND RADIUM IN TREATMENT OF MENORRHAGIA AND FIBROIDS

By W. M. Sheridan, M. D., Spartanburg, S. C.

The first cases of bleeding due to benign uterine conditions successfully treated with X-rays were reported by Morton¹ in 1903, and the first cases successfully treated with radium were reported by Abbe² in 1914. Thousands of cases of menorrhagia due to fibroids and other benign conditions have been successfully treated since that time.

In a very cursory survey of the literature I ran across the following case reports:—Mathews has treated 108 cases by radiation with 98 per cent. cures, Corscaden 203 cases with 99 per cent. cures, Crossen 600 cases with 95 per cent. cured, Beclere 700 cases with 99 per cent. cured, Becquerel 800 cases with 99.5 per cent. cured, Schmidt 6,189 cases with 93.5 per cent. cured, and Clarke 476 cases with 91 per cent. cured.

Read before the Fourth District Medical Society, Union, S. C., September 15, 1925.

Clarke's cases were given only one radium application. The other cases were given several x-ray or radium treatments. Of Schmidt's 6,189 cases 3,748 were myomata and 2,441 were cases of ordinary menorrhagia. The word cure means that the bleeding stopped and in case there was a fibroid the uterus was reduced to normal size. In other words these nine men have treated 9,076 cases with an average of 96 per cent. cured.

In November 1922 the distinguished gynecologist, Dr. Howard A. Kelly³, made this statement, "He who would give his patients the same consideration he would his wife or his sister, must put radium first in the treatment of fibroid tumors. In uncomplicated fibroids, especially when associated with excessive bleeding there is no treatment as satisfactory as radium. In our hands there has been, in several hundred cases, no mortality and the bleeding has been checked in almost every case. There is a consensus of opinion that radium treatment is applicable to the small fibroids. I should like to go on record here to the effect that in a high percentage of the large tumors there is either a complete disappearance or marked reduction in the size of the large growths." Dr. Kelly also added, "The radiation as a rule in no way interferes with or make more difficult, or contra-indicates a later operation should this in the end prove necessary.

In what cases of benign menorrhagia is the use of x-rays and radium contra-indicated? Surgery is more suitable for tumors larger than a four months pregnancy. However, there are cases on record where tumors as large as an eight months pregnancy have been successfully irradiated in patients who presented some contra-indication to operation. A fibroid should be removed if it is causing pressure symptoms, if it is rapidly growing, or shows evidence of calcareous degeneration. Pedunculated fibroids should be removed surgically. In young women with a large single fibroid where it is not necessary to remove the uterus, operation is preferable. However, in case there are one or more small tumors, x-rays or radium may cause the tumor to disappear without stopping the menstruation. X-

rays are not contra-indicated where there is a history of adnexal disease unless there is a palpable accumulation of pus.

Where there is acute adnexal disease or pelvic abscess treatment over the pelvis is contra-indicated, but bleeding may be stopped by giving a short x-ray treatment over the spleen (15 per cent. E. S. D.). This small dose increases splenic function which in turn depresses ovarian function. In this way bleeding is stopped in about 80 per cent. of cases. If the bleeding continues another treatment (2-3 E. S. D.) may be given over the spleen forty-eight hours later.

Hemorrhage following abortion and hemorrhage during pregnancy from the uterus or elsewhere in the body may be stopped by an x-ray treatment over the spleen.

In what cases are x-rays and radium indicated? They are indicated in fibroids the size of a four months pregnancy or smaller. Fibroid tumors are nearly completely reduced in 85 per cent. of cases. X-rays and radium may also be used in treating larger fibroids when there is some contra-indication to operation.

Polak⁴ states that, "Bleeding may always be controlled by rest, x-rays and radium. The curette aside from its diagnostic value has no place in the treatment of hemorrhage from fibroids."

X-rays and radium may also be used in checking the menorrhagia of young girls and of women during the child bearing period as well as the bleeding of women near the menopause. In women under thirty-eight it is usually best to check the menstruation to normal, and in women over thirty-eight to induce an amenorrhoea. X-rays and radium may be used if menorrhagia is due to cystic oophoritis, chronic adnexal disease, polypoid endometrium, fibroids of the uterus, or faulty uterine musculature (myopathy). In case there is an associated dysmenorrhoea or leucorrhoea the pain usually ceases and the discharge disappears.

Small doses of x-rays or radium may be used in young women without danger of stopping the menstruation. In women near the menopause the menstruation can always be

stopped without difficulty and many times no nervous symptoms follow.

Radiation treatment is superior to operation in these cases because there is no mortality, no operative complications or sequelae and in case x-rays are used the patient does not need to be admitted to the hospital and no anesthetic is required. Most cases in which radium is used will also require no anesthetic, but it is usually best to hospitalize them. Kelly states that radium acts as a specific in myopathic hemorrhagic uteri and that surgery should never be used in these cases.

Clarke and Keene⁵ treated 300 cases of hemorrhage due to benign uterine causes and observed them for periods ranging from three to five years. They state that "no single instance has come to our attention in which there was any remote deleterious result which could in any way be traced to radium.

When compared with surgery x-rays and radium produce,⁶ "equal if not superior results, at a fraction of the time, cost, and suffering which the use of the knife invariably entails."

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DIABETIC COMA

By T. R. Littlejohn, M. D., Sumter, S. C.

DEC. 1ST, 1923: Female patient. Age 15. The nurse said that she has been complaining of shortness of breath all day. At 11:00 A. M. her temperature was 99 4-10, pulse 118, respiration 20. Was given a soft diet. PHYSICAL EXAMINATION: 7:00 P. M.—Poorly nourished female. Very labored respiration. Slightly conscious. Diabetic acid breath. About 9:00 P. M. patient went into a deep coma. Was given a hypo. 1-10 gr. of morphine. Salt enema was ordered with only fair results. Hot water bottle was applied and was given 20 units of Insulin intravenously with 20 cc of a 5 per cent glucose solution, subcutaneously. Insulin was given every two hours subcutaneously during the night, until 8:00 A. M. the next day. She was given as much normal salt solution as we could give her by rectum.

DEC. 2ND, 1923. Beginning at 8:00 A. M., she was given Insulin intravenously every two hours during the day. About 10:00 A. M. she had a vomiting spell, vomited very dark matter. About noon she vomited more black matter and some grape hulls. She vomited again about 2:30—more grape hulls. 2:45 patient began to regain consciousness. Pulse at this time 136. She went to sleep about 3:45 and slept quietly. She was then ordered three oranges a day and 20 units of Insulin t. i. d.

DEC. 3RD, 1923. About 4:30 A. M. she went into another coma, deeper than the first. She was then given again 20 units of Insulin, intravenously every two hours and at 5:00 A. M. was given 15 cc of a 5 per cent glucose solution. Urine showed 3 per cent sugar, diacetic acid four plus, blood sugar 600 mg per 100 cc of blood. She remained in this coma until 5:00 P. M., December 5th, and was given 20 units of Insulin every two hours until 6:00 P. M. that day.

DEC. 5TH, 1923. Blood sugar was 400 mg per 100 cc. Temperature 99 2-10, pulse 96, respiration 12. Patient was very restless that

night. She was catheterized for the first three days obtaining about four ounces of urine in 24 hours. After regaining consciousness for almost 24 hours the urine was passed involuntary.

DEC. 6TH, 1923. Blood sugar was 422.3 mg per 100 cc and urine 1.5 per cent, diacetic acid, four plus. We gave her coffee and oatmeal at 9:00 A. M. and broths at liberty. Her Insulin was reduced to 20 units four times a day. About 9:00 P. M. she complained with her ear, some swelling of the parotid gland.

DEC. 7TH, 1923. Temperature ranged from 101 2-5 to 102 4-5. Urine showed 1.4 per cent sugar. She was given in addition to her oranges, clear broths and oatmeal, 6 ounces of skimmed milk with one ounce of 20 per cent cream. She had coffee at 9:00 A. M. and for dinner, lettuce and string beans, enough of each to make one half saucer.

DEC. 8TH, 1923. Blood sugar was 306.1 mg and urine, .67 per cent. Temperature 99, pulse 92, respiration 16. No change in diet for the next week. Her parotid gland was very much swollen, and freely incised.

DEC. 14TH, 1923. Patient's blood sugar was 174.4 mg and urine, morning specimen 1.6 per cent sugar and afternoon specimen 2.4 per cent sugar. She had a chill in the afternoon and pus was found in the urine, another complication-pyelitis. She had a little discharge from the parotid gland. Was still getting 20 units of Insulin t. i. d.

DEC. 15TH, 1923. The urine was sugar free. We were gradually working her up to Joslin's Test Diet No. 2, modification A—carbohydrates 139, proteins 102, fats 108. She was getting at this time carbohydrates 75, proteins 50 and fats 75. She was still having chills, several of them a day and temperature ranging from 99 to 104. By the 28th her temperature was normal until January 7th, when she had another chill, cough, rapid respiration, high fever and scattered rales throughout both lungs. Diagnosis at this time, a probable broncho pneumonia. She was x-rayed on the 1st of February and found fluid in the right lung. Dr. Epps was called in and did a radical operation, obtaining about 6 ounces of thick foul smelling

pus. She remained in the hospital about a week.

This case is interesting for the following reasons besides the coma: parotitis, pyelitis, broncho pneumonia, and empyema. This little lady is now eating with the family, and almost anything they eat, except deserts. She seems to get along nicely with her Insulin. She increases or decreases according to her own feelings. She is taking 10 units of Insulin t. i. d. Weight at time of coma was 90 pounds, present weight 116.

Case Number 2. Sept. 19th, 1925: I was called in about noon to see a diabetic in coma. The doctor said that she had been in coma since midnight. She has had diabetes for about five years, but from the history, it must have been very mild most of these years, as the doctor said she had not paid any attention to her diet. I found her in a deep coma and immediately began treatment by giving her 20 cc of a 5 per cent glucose solution, subcutaneously, and 20 units of Insulin intravenously, repeating the Insulin in two hours. I also gave her a soap sud enema, and six ounces of salt solution every four hours. Four hours after the first dose of glucose I gave her another dose. She got the Insulin every two hours, after this subcutaneously. She remained in this coma until 6:00 o'clock the next morning. After this coma she had a good recovery. Her weight at the time of the coma was 200 pounds and thirty days after was 160. Sept. 21st: Urine showed trace of diacetic acid and no sugar, blood 142.8 mg.

TREATMENT

- (1) Put the patient to bed.
- (2) Keep patient warm.
- (3) Give a salt enema, and if you suspect that anything is in the stomach, wash the stomach out.
- (4) Give strong coffee as a stimulant.
- (5) Avoid alkalies in the form of soda.
- (6) Give plenty of Insulin.

Several years ago it was pointed out by Zeller that on a maintenance diet of 3,000 calories, that if less than 10 per cent of carbohydrates were given in calories, Ketone bodies would soon appear.

What we all fear in cases of diabetes is, acid intoxication. The test is simple, taking only a few seconds to make it and when diacetic acid first appears in the urine, it is time for the doctor to be on the lookout for coma. I usually begin treatment when the first symptoms of an acidosis appear by reducing the fats and proteins. If the case is severe, I give carbohydrates in the form of three oranges a day, next I add milk and when the stomach can stand it, 5 per cent vegetables.

INTRAVENOUS UROTROPIN IN POST OPERATIVE URINARY RETENTION

By A. E. Baker, Jr., M. D., Charleston, S. C.

Since the advent of surgery, and especially do I refer to abdominal, pelvic, and rectal surgery, the post operative retention of urine has been a source of much concern to both the physician and patient. Dr. Howard Kelly¹ speaks of it as one of the bugbears to the surgeon.

Until recently little was done to relieve the situation except the usual application of hot pads to the abdomen and perineum, hot Sitz baths and hot rectal irrigation, all of which most frequently have to be followed by catheterization, which in some instances continues for a week or more.

Hexamethylenetetramin, (urotropin) given intravenously as used in the German, French and English clinics during the past two years, has introduced to surgery a new phase of post operative treatment and one which may prove very beneficial.

In an effort to determine the efficiency of this treatment I have collected a series of one hundred consecutive post operative cases at the Baker Sanatorium in which urotropin was *not* used as compared with a series of like cases in which intravenous urotropin *was* administered. These cases were ones upon which abdominal, perineal and rectal operations were performed, as these are the cases that most frequently require catheterization.

In this series of fifty post-operative cases,

from 2 cc to 6 cc of a 40 per cent solution of urotropin was given intravenously within two hours after operation. This strength is the standard used by European surgeons and a few surgeons of this country. In both series of cases ether anesthetic was used, the time of anesthesia varying from twenty-five minutes to one hour and fifty minutes.

Of the series of one hundred cases who did not receive urotropin, 59 per cent required catheterization. This percentage is higher than that of A. Ecke,² who reports 44 per cent catheterized out of 115 cases, and E. Weinzierl,² who reports 45 per cent catheterization out of 1008 cases. This may be due to the nature of operations in my series of selected cases. As compared with 59 per cent of the non-urotropin series that necessitated catheterization, only 8 per cent of the ones given urotropin had to be catheterized, and of this 8 per cent of cases 6 per cent urinated spontaneously after the second dose, and the other 2 per cent after the third dose. Every case therefore finally responded.

The number of times the catheter was passed in the non-urotropin series was 304, as compared with sixteen times (on basis of 100 cases) in the urotropin series. The average time from the injection of urotropin to the spontaneous relief of retention, when no more urotropin was required, was four hours and forty-five minutes. This depended greatly upon the dose. The time of retention, or catheter hours, in the non-urotropin series ranged from three to two hundred and twelve, averaging 41 1-2 hours before the patient could spontaneously relieve himself. Thus we see that in the urotropin series the average patient was voiding in 4 3-4 hours, and in the non-urotropin series in 41 1-2 hours.

Dr. E. Vogt's² results show that out of 200 post-operative cases he did not have a single failure. "Weinzierl³ used with good results intravenous injections of 40 per cent urotropin in post-operative retention of urine in 327 gyn. and 28 ob. cases. He injected 5 cc the second day following the operation." "Ecke administered the injection at 9:00 P. M. if the patient was operated on in the morning. His results in 51 cases were encouraging." In Schwab's³

experience it failed only in 2.9 per cent of 420 cases. Goetz² reports excellent results with 5 cc of 40 per cent urotropin given immediately after operation and if in exceptional cases this is ineffectual, he gives 10 cc the following day.

Now as to the *action* of urotropin given in this manner, its *danger*, its *dosage* and *indications*. There are recognized to be two different¹ mechanisms⁴ in the causation of post-operative urinary retention, both of which play a part; the first is cramp of sphincter muscle, and the second an inhibition of the motor nerves to the longitudinal muscles of the bladder from toxic substances similar⁵ to post-operative atony of the intestines. The latter is undoubtedly¹ the commoner cause.

Having a persistent retention, we must decide upon one of two methods for giving relief. In consideration of the catheter, we know that it is the most important single exciting factor⁵ in producing cystitis, because of trauma and conveyance to the bladder of some of the organisms, notably the colon bacilli,⁵ which are always present in the lower urethra of bed ridden patients.

If the patient is unable to void the catheter must be passed frequently, else vesicle distention takes place, which condition fatigues⁴ the longitudinal muscles of the bladder, which relax before the bladder is thoroughly emptied, thus allowing a certain amount of residual urine. The residual urine is proportionate in quantity to the degree of atony of the bladder wall, the latter is influenced by the length of time the bladder is left distended. Residual urine always makes catheterization more frequent. When four to six ounces of residual urine occurs there develops chronic congestion which is often increased by cystitis and fermentation of the stagnant urine, an excellent media for bacterial growth. To prevent this complication the catheter must be passed often, to the discomfort of the patient, and at the same time subjecting him to bladder infection per catheter, which too often occurs to spoil an otherwise excellent surgical result. Dr. J. H. Jacobson⁵ says that urinary retention is the most common complication which predisposes

to an inflammation of the bladder following surgical operations.

When urotropin is given intravenously our purpose is accomplished by the formation of formaldehyde in the acid urine of the bladder, just strong enough to slightly irritate the atonic bladder wall sufficiently to excite vesicle peristalsis, by which spontaneous micturition is produced. Formaldehyde can be found in the urine eleven⁶ minutes after administration, reaching its maximum in one to three hours and lasting from 20⁷ to 41 hours independent of the fluid intake. Thus we have a stimulation which lasts long enough to give sufficient tone to the muscles of the bladder, which usually does not require a second injection. The amount¹¹ of formaldehyde formed depends upon the degree of urinary acidity. In no case have I found it necessary to administer drugs to acidify the urine, however, the urine must be acid in reaction.

Rush and Hanzlik⁷ have conclusively shown that urotropin is not a diuretic, and L. Cheinisse² in the *LaPresse Medicale* has shown that the urotropin action is not one of psychical order by using control tests with the same amount of saline solution injected in the veins without any effect.

The treatment is almost entirely free from any harmful effects except in some susceptible patients or when extremely large doses are given, and then the formaldehyde excreted into the bladder causes an irritation manifested by painful micturition² and eventually by cystitis and hematuria. Urinalyses in my series of cases show that no complication developed in any case. Goetz,² who frequently gives as much as 10 cc per dose reports two cases of cystitis from a series of 50 patients. These cases cleared up in two weeks. Cystoscopy⁸ in such cases reveals hemorrhagic cystitis, the hemorrhage only being from the bladder. Crow states⁹ that urotropin does not cause any systemic effects on intravenous or hypodermic injections of enormous doses, nor does it have any local action. Laeper and Gosdidier¹⁰ prefer the intravenous route for all therapeutic purposes, declaring that the intravenous injection is no more harmful than the oral administration.

Dosage varies from 2 to 10 cc of a 40 per cent solution. This solution is very conveniently brought out for this purpose in 5 cc ampules by Schering & Glatz Co., New York.

After perineal or rectal surgery as much as 6 cc per dose may be required. In surgery of the upper abdomen and elsewhere 3 cc to 5 cc should be sufficient. The time of injection is important. It has been found that when given immediately after operation it sometimes causes a sensation of pressure in the bladder. My best results followed injections one to two hours after operation and never was it necessary to give over 5 cc at a dose.

From our experience it can be said that this treatment is indicated in all post-operative cases when the surgeon is reasonably sure, through experience with like cases, that catheterization will be necessary. It is indicated after passing the catheter to prevent further catheterization.

It is contra-indicated when there is any mechanical obstruction to the bladder outlet, as tumor growths, strictures, etc. It is difficult to get an action with urotropin before vaginal and uterine packing is removed, as this often proves to be a form of mechanical obstruction as well as a source of reflex stimulation to the sphincter muscle. It should not be used after operation upon the bladder. It should not be used if urinalysis suggests a nephritis, cystitis, or other pathology of the genito-urinary tract.

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DISCUSSION

DR. N. B. EDGERTON, Columbia, S. C.
(Deceased)

Dr. Baker's paper is very interesting indeed. Certainly he suggests a very easy method of preventing retention after pelvic and abdominal operations. I can not quite see how urotropin does it, but of course that is not necessary. I do not see how the formaldehyde gas liberated acts on the longitudinal muscles of the bladder, and I shall be very much interested in learning of Dr. Baker's further observations. I congratulate him upon his paper.

DR. MARION H. WYMAN, Columbia, S. C.:

I have never used urotropin intra-venously for urinary bladder retention, but Dr. Fouche has suggested the use of pituitrin in post-operative urinary retention. Pituitrin will stimulate the bladder muscles and make the patient urinate after an operation when he cannot otherwise. I enjoyed Dr Baker's paper and it would appear that he has made a real contribution to a troublesome condition.

DR. JAMES S. FOUCHE, Columbia, S. C.:

We know that pituitrin acts on the involuntary muscles. I noticed in delivery cases, when I had occasion to give pituitrin before delivery I never had to catheterize that patient. I do not do any operative work myself, but I enjoyed what I did hear of Dr. Baker's paper.

DR. G. McF. MOOD, Charleston, S. C.:

I should like to ask Dr. Baker whether the oral administration of several doses of urotropin, over a period of several days prior to operation, would not give the same result.

DR. W. T. LANDER, Williamston, S. C.:

What about the value of this intravenous use of urotropin for a cystitis or a pyelitis?

DR. BAKER, Jr., closing the discussion:
Charleston, S. C.

Following up what Dr. Edgerton had to say about the action of urotropin in these cases I want to say that if an overdose is given, a cysti-

tis will occur as a result of formaldehyde irritation to the bladder wall.

An ideal dose is one of just sufficient strength to overcome the atonic condition of the bladder muscles and not strong enough to cause inflammation by irritation.

Dr. Mood suggested giving the drug by mouth. It requires no less than a 40 per cent solution in the blood stream to obtain results, therefore I do not believe that the stomach could take care of the large amount of urotropin which would have to be taken in order to obtain such a concentration.

If intravenous urotropin is capable of setting up a cystitis it is naturally contraindicated in cases with an existing cystitis.

Dr. Lyles of Spartanburg uses urotropin intravenously instead of orally in all genito urinary infection when the drug is indicated, with good results.

POST-GRADUATE STUDY IN EUROPEAN CLINICS

*Wm. B. McWhorter, B. S., M. D., F. A. C. S.,
Anderson, S. C.*

Mr. President and Gentlemen of the Oconee County Medical Society:—

Your Secretary has very kindly invited me to talk to you about my observations of the clinics which I visited on a recent trip to Europe. I wish to thank him for this invitation and assure you that it is a pleasure to meet with you. I have no cut and dried speech to make, so if you please I will merely give you a little outline of my trip in an off hand way. If any one should care to ask any questions I hope you will do so. I will do my best to answer them.

I was not among the large party of physicians and surgeons who made a clinical tour of Canada and a portion of Europe during the summer. Except for the time I spent in Paris and Bordeaux, most of the time I traveled alone. Going alone has its disadvantages and also its advantages. One will get lonesome at times when he is in a foreign land. On the other hand he is left free to do as he pleases and will have no one to tell tales on him when he gets back home.

I did not attempt to visit a large number

of clinics. Most of my time was spent in Bordeaux, France, in Vienna and in London. Being more interested in oto-laryngology and ophthalmology my observations were confined mainly to that line of work. While the primary purpose of the trip was for study, between times I had opportunity to visit some noted points of interest.

By prearrangement I met with nine other American physicians in Paris. We spent a few days there visiting some of the hospitals and other points of interest. Paris has the reputation of being the pleasure city of the world. From what I could see it lives up to that reputation. A large number of tourists from all over the world visit Paris. It is stated that you can sit at the Cafe De La Paix for fifteen minutes and see the whole world pass by. Of course a large number of these visitors come for pleasure and the city's reputation is due as much to them as to the natives of Paris.

The city has many beautiful boulevards and parks. The French people take things more easily than we do. In the evenings they spend much time sitting out in front of the cafes and in the parks. They like to parade back and forth on the main streets and if you are interested enough to take notice you can always see what is the latest in ladies gowns. I might add that the bunch of American doctors that I was with did not show any lack of interest in that respect.

From Paris we traveled in a southwestern direction a distance of some three hundred fifty miles to Bordeaux, passing through part of the best agricultural section of France. The agricultural classes are very industrious. So much so that they do not observe Sundays but work seven days in the week. Small farms abound and appear to be in an intensive state of cultivation. The southwest of France is the great wine country, Bordeaux being the marketing center. We visited the wine cellars while there which cover several acres underground. Thousands of barrels of wine are stored there for aging. The manager very kindly insisted that we sample the many different vintages which some did to their subsequent undoing, having not the capacity of the seasoned Frenchman. He expressed his contempt for

the Volstead act with typical French enthusiasm and lamented the fact that shipments to the United States had fallen off since the advent of prohibition.

I spent six weeks in Bordeaux working in the clinic of the noted Dr. Georges Portman. He is Professor of Oto-laryngology at the University of Bordeaux and is one of the most brilliant men in this line that I have ever had the privilege of knowing. He speaks excellent English and gave the ten of us his entire time from eight in the morning until seven in the evening. Full of energy, earnest and courteous as an instructor, he always set the pace and it was up to us to keep up with him.

From eight to ten in the mornings we made rounds at the hospitals Tondou doing dressings and watching the progress of cases previously operated. At ten we went to the operating room and remained there until the days schedule of operations was completed. This usually required three or four hours. Only major surgery of the head and neck was done at this time and each man had opportunity to act as assistant. After each operation the various steps were outlined and illustrated by excellent free hand drawings. The most frequent operations were mastoidectomy simple and radical, drainage of brain abscess, external and intranasal operations upon the nasal accessory sinuses, removal of maxilla or mandible for malignancy or necrosis, plastic operations upon the face and neck and various operations upon the larynx. The European oto-laryngologist considers that almost any operation upon the head or neck lies rightly within his field. We spent the afternoons at the clinic St. Raphael making examinations and diagnoses and doing minor surgery upon the ear, nose and throat. We also had opportunity to do some bronchoscopic work as cases presented.

Bordeaux has a population of three hundred thousand and is the medical center of southwest France and a portion of northern Spain. The number of clinical patients is large. The unselfish devotion of the doctor to these patients and their unbounded faith and gratitude is very noticeable. The charity hospitals consist of a number of buildings closely situated in one of the suburban parks. In some re-

spects they are not as modern as ours but the room appears to be ample. The anesthetists and nurses are well trained.

I found local anesthesia used to a greater extent than with us. They are skilled in injecting it and use very large quantities of a weak solution. They do not pay quite so much attention to asepsis and minor operative technique as we do. They impressed me, however, as being rather more painstaking in diagnosis and post-operative treatment.

The better class of French are a very courteous and cultured people and are very grateful to us for our participation in the war. The average tourist does not meet with the best class but comes in contact mainly with the hotel and shopkeepers. Consequently he very often forms wrong impressions.

Leaving France for Vienna I took a motor trip through Switzerland. To speak of the beauty of her lakes and mountains is superfluous. The lakes are as blue as the sky which they reflect. The valleys are covered with a carpet of the greenest of grass which ascends the Alps until it is lost in snow. Adjacent to France the Swiss speak French, next to Germany they speak German. They are an industrious and prosperous people and have had the good sense never to become involved in the many wars that have surrounded them.

Vienna is situated in middle Europe on the blue waters of the Danube. It has long been a noted educational and medical center. Its reputation as a medical center is due to its location and consequent large amount of clinical material, to the central location and accessibility of its large hospitals and most of all to its University and the scholarship and culture of its medical faculty. Post-graduate instruction is given in all branches of medicine and surgery and the courses are probably better organized than elsewhere in Europe.

The American Medical Association of Vienna was organized several years ago for the promotion of post-graduate study among American physicians. The Association employs a secretary and maintains rooms near the large hospitals. One may register on payment of a small fee. Private courses may be arranged with individual instructors or one may re-

gister for courses which are given only at regular intervals. The latter courses are limited as to number and one has to await his turn. The fees depend upon the nature of the work but are usually five dollars per hour divided among the number taking the course. There are also internships available for periods of six months or longer. For these no fees are required.

Anyone who has the impression that Vienna is a quick lunch counter where he can get just what he wants on short notice will be sadly disappointed. They do not issue certificates to anyone for a less period of study than three months. They encourage you to stay much longer if you wish to make the most of the opportunities offered. Many of the best men are absent on vacation during the summer months. The best work is given in the fall and winter months during the regular session of the University.

Before the war Vienna was the commercial center of central Europe. Due to the splitting up of the old Austro-Hungarian Empire the city has lost much of her territory and has suffered much in consequence. The population remains about the same but it is not so busy or so prosperous as formerly. Architecturally the city is a very fine one and many beautiful buildings, including the palace of the old Emperor Francis Joseph, are situated on the main street called the Ring Strasse. The general appearance of the city, however, and the spirit

of the people create the impression that they have seen better days.

Leaving Vienna I came up the Danube and crossed into and through Germany to Frankfurt, thence by boat down the Rhine to Cologne. There is but one Rhine. The historical associations of the river from the time that Julius Caesar, built the first bridge across it down to the present day, the cities and ruined castles upon its rugged banks, all combine to make the Rhine the only one of its kind.

Passing through Holland and Belgium and across the channel I visited some of the hospitals in London, spending most of the time at the Royal Ophthalmic. This is one of the largest of its kind in the world and I was much impressed with the work done there. Well arranged post-graduate courses and internships are available.

Medical science among civilized nations is the same the world over. It is only in its application that there are minor differences. It is certainly worth any man's time to watch the methods of other men whether it be at home or whether it be abroad. The man who does not profit at home, however, will profit less abroad for there are differences of custom and language that make the work harder in some respects. To him who aspires to increase in knowledge I would say, first make the most of the opportunities offered in your own land. Afterward, if there is the time and the desire, a visit to the other side will be a pleasure, a profit and a satisfaction.

PUBLIC HEALTH

By R. G. BEACHLEY, M. D., Health Officer, Spartanburg County,
Spartanburg, S. C.

HEART DISEASE

Prevalence: Two per cent of the persons examined by insurance companies are rejected because of serious heart defects.

Two per cent of industrial workers are found on careful examination to be the subjects of serious heart defects.

Two per cent of those examined in the draft and camp examinations by Army Medical Examiners were rejected on account of serious heart defects.

One and one-half to two per cent of the children examined in the schools show serious heart defects.

From the above facts we may conservatively estimate that *two per cent of the population*, or in the United States, *over two million persons*, suffer from serious heart disease.

Effect on Longevity: It has been found that heart disease has a serious effect on longevity, reducing the span of life by practically one-half. Studies of the group of insured lives in the Metropolitan and New York Life Insurance Companies indicate that those suffering from mitral regurgitation have a mortality of 50 to 100 per cent in excess of the normal

mortality for persons at their respective ages. Those suffering from other heart defects, such as aortic regurgitation and aortic stenosis, show an even higher relative mortality.

Mortality: For the past two years, in the Registration Area, *organic heart disease has caused more deaths than tuberculosis*. The death rate from organic heart disease for a series of recent years has been fairly stationary, its rise to first place being accomplished by the fall of tuberculosis.

Under 25 years of age *organic heart disease causes as many deaths as typhoid fever*.

Between 25 and 34 years *organic heart disease causes as many deaths as lobar pneumonia*.

Between 35 and 44 years *organic heart disease causes more deaths than Bright's Disease*.

After 45 years *organic heart disease shows a higher death rate than any other cause*.

In organic heart disease we have a condition equal in importance to tuberculosis. While the latter condition has been attacked with the greatest courage and with ample funds, the control of heart disease has barely been attempted, the field has been virtually untouched. A splendid opportunity awaits the attack on heart disease.

SURGERY

SAMUEL ORR BLACK, M. D., Spartanburg, S. C.

THE DALLAS MEETING, OF THE SOUTHERN MEDICAL ASSOCIATION

The Southern Medical Association held its 1925 meeting at Dallas Texas, November 9-12 inclusive.

More than 2,500 members registered prior to noon of the last day. There were between five and six hundred visiting women, wives and daughters of the members.

Dr. Stewart Roberts of Atlanta, Ga., the president, presided with his usual wit and brilliance over the general sessions of the association, most of which were held in the evening.

The association itself is now so large, that it has been subdivided into sections of "Specialties" eg. a section, on surgery, one on medicine, gastro-enterology, public health, pediatrics, etc.

Each section elects its own presiding officers, and these officers make out the program for the next year.

No member of the society may present a paper at a given meeting in more than one section.

The papers are limited to twenty minutes and the discussion to five minutes. A splendid lantern slide machine was at hand in each section, with a competent and experienced operator in charge.

The presidential address was entitled "William C. Goethals of Alabama." It was a glowing tribute to a wonderful man, delivered with oratorical effect and enjoyed by all present.

On Wednesday evening Dr. Irving Abel of Louisville, Ky. read an interesting paper entitled "Surgery of the South", in which were narrated the origin and history of the medical schools of the Southland, as well as the events and coming achievements of many of these distinguished men, who constituted the faculties at one or another time of the school. In addition, Dr. Abel took time to refer with pride

to the splendid work of many other illustrious southerners, who have immortalized their names in American medicine.

Dr. Charles Mayo, in the same evening made a talk on Avian tuberculosis in the liver and spleen. This is chicken tuberculosis in the human which is very rare. In prefacing his remarks Dr. Mayo took occasion to refer to the part southern medical men had played in bringing medicine in the western hemisphere to its present high plane of perfection. There was a time when European and especially Central European medicine excelled, but that day has passed, in his opinion and American medicine now carries the banner of supremacy.

Dr. A. C. Scott of Temple, Tex. the best known medical man in the southwest, read a most illuminating and illustrative paper on "The substitution of the cautery for the knife in treatment of cancer.

Dr. Scott is the founder of the famous Scott-White Clinic at Temple. There are 25 physicians attached to his staff and the clinic operates a private hospital of 135 beds. Truly, Temple is the Rochester of the Southwest.

Obviously, it is impossible to herein record all the high lights of the meeting. There were many exceedingly interesting papers by many other outstanding men in southern medicine, as well as several invited guests, themselves national figures in medicine and surgery.

Dr. Cary of Dallas, a wealthy and distinguished member of the profession of that great city has erected an 18 story office building which is a monument to himself. There are from 10 to 14 offices to each floor, not counting the first and the great majority of these are occupied by physicians, surgeons and specialists.

It was the general impression that all in all, the Dallas meeting was without question, one of the most satisfactory of all the meetings yet held by the Southern Medical Association.

EYE, EAR, NOSE AND THROAT

J. F. TOWNSEND, M. D., F. A. C. S., CHARLESTON, S. C.

LOCAL IMMUNIZATION OF TISSUES OF THE NOSE, THROAT AND EAR BY BACTERIAL VACCINES

By Harold M. Hayes, M. D.

in

Archives of Otolaryngology. October, 1925.

The application of vaccines locally in the treatment of diseases of the nose, throat and ear, should appeal to the Otolaryngologist. It has been our experience that vaccines applied hypodermically, whether they have been autogenous vaccines or heterogenous combinations manufactured by a commercial concern, have not met with the desired success. It has always seemed to me that, in our special field, it was often a question of luck whenever the result we were looking for was attained.

It was only during the past summer that my attention was called to the amazing results attained by Prof. Besredka, of the Pasteur Institute of Paris, in the prevention of typhoid fever by the local administration of typhoid vaccine. Later experiments proved that vaccines could be prepared for other conditions. For example, it has been proved that the entire skin area of the body is one organ, and that if a part of the skin is immunized directly, such as an acne or in furunculosis, the whole will be immunized. A broth vaccine can be prepared and applied as a poultice in certain skin conditions with astonishingly good results. Then again, it was found that bone infections (osteomyelitis) responded very well to such treatment. A broth culture is made of the infecting organisms, and the entire wound is poulticed with the vaccine. The reports in such cases are more than satisfactory. I myself have proved its value in wound infections by applying such vaccine to slowly healing mastoid wounds, when the restorative power of the patient seemed to be below par.

A culture is made on a sterile swab and im-

mediately sent to the laboratory. As soon as the swab reaches the laboratory, it should be immersed in the culture medium, and prepared according to special directions given in article from which this abstract is taken.

In nasal conditions (other than direct application to the antrum), the applications were as follows: the nasal mucosa was first cleansed with hot alkaline solutions. It is better not to shrink the mucosa first with cocaine or epinephrin, so that a large area of absorption can be left open. At intervals of from three to four days, the nares were packed with long strips of cotton gauze immersed in the vaccine. If the infection is chiefly high up in the nose—the type of infection which one sees in ethmoiditis—the packing is placed between the septum and the middle turbinate bone. The packing is allowed to remain in place for at least one half hour and is then removed. In the intervals between office treatments, the patient is given a smaller amount of the vaccine to use twice a day at home in an atomizer. The patient should receive eight office treatments. Variations in this form of treatment may have to be made, particularly in children, in whom the vaccine may be instilled into the nose by means of a medicine dropper. It will make little difference if some of the vaccine is swallowed.

In antrum infections or in frontal sinus infections, one may clean out the cavity by thorough irrigation; then the vaccine may be instilled into the cavity and allowed to remain.

The treatment of throat infections has not been so satisfactory, mainly because there is no cavity into which the vaccine can be placed.

In treating ear infections, we have found that the instillation of the vaccine into the ear canal is sufficient for conditions of the external auditory canal and middle ear infections. For the treatment of the mastoid wound, the vaccine is instilled directly into the

wound at each dressing and it is also applied as a wet dressing to the wound. In all other types of cases it is best to apply the vaccine as a wet dressing. We have found it far more beneficial than any of the antiseptics heretofore employed.

For vaccine treatment the type of patient was chosen to whom ordinarily would have been given a vaccine hypodermically. This applied particularly to the nose and throat patients, but not to those with acute ear trouble, for it has been our experience in the past that vaccine treatment was of little use in aural lesions.

When the infection seemed to be high up in the nose and in a part that could be readily reached without traumatism, the vaccine was applied on a long tampon of cotton similar to the Dowling treatment with protargin mild.

Four patients with asthma and an associated ethmoiditis were seen and treated; one of these were cured and three of them were improved. Again, one must be reminded that these were patients who formerly had been treated by the usual methods with no definite improvement.

In mastoid cases he uses the broth culture in cases of delayed healing, especially when suppuration continues for a considerable length of time.

In cases of nasal suppuration after a removal of a malignant growth, the result was particularly marked and gratifying. A detailed report of this case is given.

In conclusion, I desire to emphasize the following points:—

1. Cultures from the nose, throat or ear can be readily made, and vaccines prepared in broth.
2. A simple technic without isolation of specific bacteria will produce a practical vaccine.
3. The application of vaccines locally is a painless procedure, and acts directly on the tissues infected.
4. The vaccine seems to act more beneficially in purulent conditions which can be reached directly.
5. Nasal sinus infections seem to respond more readily than other conditions.
6. The local application to slow healing wounds, particularly to bone infections, seems to create an antiseptic and stimulating action.
7. The local applications of vaccines can be made in many cases, when patients will not submit to hypodermic injections.

SOCIETY REPORTS

PROCEEDINGS

The regular meeting of the Medical Society of South Carolina was held at Roper Hospital, Tuesday, November 10, 1925, at 8:30 P. M.

Routine business was transacted.

Dr. James J. Ravenel read a paper on "Prostatism". (This will appear elsewhere in this Journal).

SCHISTOSOMIASIS

Doctor F. B. Johnson reported a case of schistosomiasis found in the white medical ward of the Roper Hospital (chart number 39070). The patient was an Arab sailor from a British ship in the harbor. His only complaint was some abdominal pains. He showed an eosinophilia of nine per cent and on examination of feces the ova of *Schistosoma mansoni* were found. This was the first case he could find as being recorded in South Carolina and the record of only one other occurring in the southeast, which was reported at Jacksonville Florida about ten years ago.

In discussing the disease, Dr. Johnson said schistosomiasis, which is sometimes called bilharziasis, is due to a blood fluke of which there are three species; *Schistosoma haematobium*, which is found most frequently in Syria, Arabia, Egypt and other parts of Africa, characterized by the lodgment of the fluke in the vesicle veins. The female gives off her ova which penetrate the tissues of the bladder wall and urinary system causing granulomatosis and cicatricial changes, the ova being found in the bloody urine. *Schistosoma mansoni* occurs frequently in the West Indies and Northern part of South America, though this species is present in Egypt as well. This condition is characterized by involvement of the inferior hemorrhoidal veins with symptoms mostly of intestinal type with bloody discharges from the bowel. The ova being found in the feces.

Schistosoma japonica is found chiefly in China and Japan, this blood fluke occurs more generally in the distributed portal veins with

involvement of the intestinal tract and also involvement of lungs.

This fluke has a double life cycle, one stage occurring in man the other stage in a form of snail, the snail discharging the carariae stage in water. Human infection takes place by these carariae passing through the skin and mucous membrane. Many individuals may harbor these parasites for years without any symptoms. Tartar emetic is specific for this disease.

Dr. Chas. D. Boette reported a case of diphtheria which developed in a child to whom he had given toxin-anti-toxin the year before. This was discussed by Drs. I. R. Wilson, W. A. Smith, H. P. Jackson, E. L. Jagar, W. C. O'Driscoll, G. McF. Mood, and W. M. Rhett. The chief points brought out in the discussion were that toxin-anti-toxin is a most valuable measure for the prevention of diphtheria; that it had reduced the morbidity very materially in cities where it had been widely used, some places having reported a total absence of diphtheria since its introduction; that it does not always confer immunity, being considered 90 per cent efficient; that it should be more generally used; and especially, that an intensive campaign in the city of Charleston would result in the material reduction in the morbidity of this disease.

There being no further business, the Society adjourned.

W. Atmar Smith, M. D., Secretary.

OCONEE

The Oconee County Medical Society met at Seneca Friday, December 4th. Dr. Hugh Smith of Greenville read an admirable paper on Pneumonia. Other visitors were Drs. T. G. Tyler and I. H. Grimball of Greenville.

The Oconee Society has had a wonderfully successful meeting every month during the fall. A program outlined several months in advance gives the society definite aims and stabilizes the papers to be read and has many advantages over the old plan.

E. A. Hines, Secretary.

SUMTER COUNTY MEDICAL SOCIETY

December 4, 1925

We think that the Sumter County Medical Society is unique in two particulars at least. First at every monthly meeting after the program is over we have a "feed" for the Doctors present. This insures a good attendance. Secondly, once a year, always in December, after the business meeting is over we have a feast prepared for our wives. This we have been doing for several years. Each year the programme improves over the year before.

Our meeting last evening resulted in the election of Dr. H. M. Stuckey as President of the Sumter County Medical Society for the ensuing year. Dr. M. L. Parler, Vice President. Dr. H. L. Shaw, Secretary and Treasurer. Delegates to the State Convention Drs. H. A. Mood and C. B. Epps. Alternates, Drs. W. S. Burgess and W. M. Bradley.

A committee composed of Dr. C. J. Lemmon, Chairman and Drs. H. M. Stuckey, Milton Weinberg, H. A. Mood and H. L. Shaw was appointed by the President as the committee on arrangements an entertainment for the State Medical Association which meets in Sumter in April next.

This concluded the business of the evening. The Physicians present then took their wives to the Junior Girls High School where a banquet was furnished by some of the ladies of the city. After a very enjoyable supper Dr. J. A.

Mood in a very happy and pleasing manner responded to the toast "The ludicrous side of the practice of medicine." Dr. Furman responded to the toast "Some rare experiences with our colored patients". He read a paper setting forth an examination with questions and answers of an old colored mammy who brought her son—a case of Dementia Precox to him for a diagnosis. This paper was amusing in the extreme.

This concluded the programme at the table. We then went to the auditorium where Mrs. H. M. Stuckey, wife of our President, had charge of a musical programme. She performed at the piano to the delight of all present. Mrs. C. B. Epps sang several beautiful solos. Dr. Sophia Brunson read a beautiful poem which she composed on the Physician which was very greatly appreciated. Miss Sophia Brunson gave a reading "Job's Comforter." No one but Miss Brunson could have rendered this as she did. We will always remember this reading with pleasure. Many others took part in the singing. At the conclusion of the meeting Mrs. M. L. Parler and Miss Davis thanked the Doctors for the delightful evening that they had given them.

Among the invited guests apart from the doctors wives were Misses McAllister, Davis, Obenshain, Gibson of the Tuomey Hospital and Miss Bradley, daughter of one of our physicians.

H. L. Shaw,

Secretary Sumter County Medical Society.

OBSTETRICS AND GYNECOLOGY

R. E. SEIBELS, M. D., Columbia. S. C.

The Intravenous Use of Merurochrome.—The author presents a general view of the use of the drug in bacteremia and septicemia and also as a prophylactic where infection is likely.

In those cases with a positive blood-culture, its use is recommended not with an idea of curing the patient directly but, by temporarily freeing the blood stream of bacteria, the patient's resistance is raised relatively. Nor would he expect to sterilize the blood stream when there is a local focus of infection which had not been drained surgically. In many of the cases with a positive culture, the injection was followed by a negative culture, and when the culture subsequently became positive again, the injection was repeated.

Prophylactically, he recommends small doses where infection is to be expected. This is based on results obtained experimentally in rabbits injected with the drug and with known virulent septic material. The occurrence of septicemia in the human has apparently decreased just as in the rabbit, following the prophylactic use of the dye.

A severe reaction to the injection—chills, rise in temperature and increase in leucocytes—is to be expected and only those patients who exhibited these manifestations seemed to derive any benefit from the treatment.

Piper, E. B: *Am. J. Obs. & Gyn.*, Sept. 1925, X, 371.

BOOK REVIEWS

1924 COLLECTED PAPERS OF THE MAYO CLINIC AND THE MAYO FOUNDATION, Rochester, Minnesota. Octavo of 1331 pages 254 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$13.00 net.

The Mayo Clinic papers have now been published for sixteen years. As this great institution has enlarged its field of service the contributors to the volumes have increased very materially. Perhaps no where else in the world can be found more authoritative papers in a single book.

APPLIED BIOCHEMISTRY. By Withrow Morse, Ph. D., Professor of Physiological Chemistry and Toxicology, Jefferson Medical College, Philadelphia. Octavo of 958 pages with 257 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$7.00 net.

The author of this book endeavors to bring forward the science of Bio-chemistry from the angle of its practicability in the practice of medicine.

A TEXT-BOOK OF MEDICAL DIAGNOSIS. By James M. Anders, M. D., Professor of Medicine, Medico-Chirurgical College, Graduate School of Medicine, University of Pennsylvania; and L. Napoleon Boston, M. D., Associate Professor of Medicine, Graduate School of Medicine, University of Pennsylvania. Third Edition, Entirely Reset. Octavo of 1422 pages, 555 illustrations, some in colors. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$12.00 net.

This is the third edition carefully revised of a book found valuable by the profession and evidently of increasing popularity.

CHEMICAL PATHOLOGY. Being a Discussion of General Pathology from the Standpoint of the Chemical Processes Involved. By H. Gideon Wells, Ph. D., M. D. Professor of Pathology in the University of Chicago, and in the Rush Medical College, Chicago. Fifth Edition, Revised and Reset. Octavo of 790 pages. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$8.50 net. The rapid advance in chemistry and biology in recent years appears to warrant frequent

revisions of any book on the subject. This revision appears to have been satisfactorily accomplishment and is worthy of continued confidence.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month.) Volume IX, Number III, New York Number, November 1925. Octavo of 312 pages, with 72 illustrations. Per clinic year, (July 1925 to May 1926). Paper, \$12.00; Cloth \$16.00 net. Philadelphia and London: W. B. Saunders Company.

PHYSICAL CHEMISTRY IN BIOLOGY AND MEDICINE. By J. F. McClendon, Ph. D., Professor of Physiologic Chemistry, University of Minnesota Medical School, and Grace Medes, Ph. D., Assistant Professor of Physiologic Chemistry, University of Minnesota Medical School. Octavo of 425 pages, illustrated Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$4.50 net.

THE MEDICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month). Volume IX, Number I (St. Louis Number, July, 1925). Octavo of 275 pages with 67 illustrations. Per clinic year, (July, 1925 to May, 1926) Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

THE SURGICAL CLINICS OF NORTH AMERICA (Issued serially, one number every other month). Volume V, Number III (Mayo Clinic Number—June, 1925). 260 pages with 115 illustrations. Per clinic year (February, 1925 to December, 1925). Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London: W. B. Saunders Company.

AMERICAN ILLUSTRATED MEDICAL DICTIONARY (DORLAND) A new and complete Dictionary of terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Veterinary Science, Nursing, Biology, and kindred branches; with the Pronunciation, Derivation, and Definition. Thirteenth Edition, Revised and Enlarged. Edited by W. A. Newman Dorland, M. D. Large octavo of 1344 pages with 338 illustrations, 141 in colors. Containing over 2500 new words. Philadelphia and London: W. B. Saunders Company, 1925.

Flexible Binding, \$7.00 net; thumb index, \$7.50 net.

THORACIC SURGERY: The Surgical Treatment of Thoracic Disease. By Howard Lilienthal, M. D., Professor of Clinical Surgery at Cornell University Medical School. Two Octavo volumes totaling 1294 pages, with 90 illustrations, 10 in colors. Philadelphia and London: W. B. Saunders Company, 1925. Cloth \$20.00.

These two volumes we believe represent the most exhaustive studies hitherto presented in this country. Thoracic Surgery is indeed a specialty requiring the soundest of medical and surgical training and a vast experience. The new specialty is in the main an out-growth of the world-war which gave extraordinary opportunities in chest surgery. These benefits are now being actively carried over into civil practice with remarkable results. The work of Colonel Keller at the Walter Reed Army Hospital in Washington has had much to do with the advances of this type of surgery. The author of these volumes rightfully acknowledges the necessity for team work with the internists and many allied specialists. The work of Hedblom of the Mayo Clinic has also been notable. To give an idea of the scope of these volumes we quote here the sections. Volume 1: General-Physiology, Roentgenology-Endoscopy, Anesthesia, Blood transfusion, Mediastinum-Esophagus, Pericardium-Heart, Great Vessels, Chest Wall-Diaphragm, Acute Empyema. Volume 2: Chronic Empyema, Tumors of Pleura, Trachea and Bronchi-Lungs, Pulmonary Tuberculosis, Cervical, Sympathectomy, Operations on Phrenic Nerve, Military Surger.

A TEXT-BOOK OF PHYSIOLOGY. By William D. Zoethout, Ph. D. Professor of Physiology in the Chicago College of Dental Surgery (Loyola University) and in the Chicago Normal School of Physical Education. Second edition. The C. V. Mosby Company, St. Louis.

THE PHYSIOLOGY OF THE MIND An interpretation based on biological, morphological, physical and chemical considerations. By Francis X. Dercum, A. M., M. D., Ph. D. Member of the American Philosophical Society; Fellow of the College of Physicians of Philadelphia; Member of the Academy of Natural Sciences of Philadelphia; Professor of Nervous and Mental Diseases in the Jefferson Medical College, etc. Second edition,

reset. W. B. Saunders Co., Philadelphia and London, 1925.

PRINCIPLES OF SURGERY FOR NURSES. By M. S. Woolf, M. A., B. S. C., M. R. C. S. (Eng.), L. R. C. P. (Lond.) Instructor in Surgery, and Visiting Surgeon to Out-Patients, University of California Hospital, San Francisco; Instructor in Surgery, and Visiting Surgeon, Children's Hospital, San Francisco. Illustrated. W. B. Saunders Co., Philadelphia and London, 1925.

SUBMUCOUS ENDOCAPSULAR TONSIL ENUCLEATIONS. With discussion of the evolution of knowledge of the tonsil, as a disease producing factor and various methods of enucleation. Excerpts from clinics of Charles Conrad Miller, M. D. The Oak Printing and Publishing Co., 112 N. Wells St., Chicago, Ill.

PHYSICAL DIAGNOSIS OF DISEASES OF THE CHEST. By Joseph H. Pratt, A. M., M. D., and George E. Bushnell, Ph. D., M. D. Octavo of 522 pages with 166 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$5.00 net.

Dr. Pratt, whose work in the class treatment of tuberculosis won for him international fame, has given us an admirable volume from a ripe experience. Much of this data comes out of the world war draft examinations. Dr. Pratt was closely associated at the Hopkins with Osler in the height of his activities there. We commend the book most heartily.

PRINCIPLES AND PRACTICE OF OBSTETRICS. By Joseph B. DeLee, A. M., M. D. Professor of Obstetrics at the Northwestern Medical School. Fourth Edition, Thoroughly Revised. Large octavo of 1123 pages, with 923 illustrations 201 of them in colors. Philadelphia and London: W. B. Saunders Company, 1924. Cloth \$12.00 net.

As a master-piece in not only the subject matter but in the domain of the illustrators art DeLee is practically without a successful rival. These frequent revisions have been demanded by virtue of the excellency of the book.

PREVENTIVE MEDICINE. By Mark F. Boyd, M. D., C. P. H., Member of Regular Field Staff, International Health Board of Rockefeller Foundation; formerly Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas. Second Edition, Revised. Octavo volume of 429 pages with 135 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$4.00 net.

Few of the numerous works on preventive medicine equal this volume in conciseness of subject matter and general utility for a quick reference work on the busy doctor's book shelf. It will be of value to the general practitioner as well as the special worker in public health. Incidentally the general practitioner is becoming more and more in the lime light as the strategic factor in the promotion of individualistic tendencies in the health programs of the future. If he is to measure up to his opportunities he should not only add additional books to his library but take health journals also.

A TEXT-BOOK OF GENERAL BACTERIOLOGY. By Edwin O. Jordan, Ph. D. Professor of Bacteriology in the University of Chicago and in Rush Medical College. Eighth Edition, thoroughly revised. Octavo of 752 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1924, Cloth \$5.00 net.

This book has taken its place as a classic in the medical schools of this country and deservedly so.

DYSPEPSIA: Its Varieties and Treatment. By W. Soltan Fenwick, M. D., B. S. (London), Late Physician to the Evelina Hospital for Sick Children, London. Second Edition, Revised. Octavo of 515 pages, illustrated. Philadelphia and London: W. B. Saunders Company, 1925. Cloth, \$6.00 net.

This book was out of print for some years but the demand appeared to necessitate a reprinting and revision. The author stresses the digestive disturbances of childhood as well as those of later life.

A MANUAL OF GYNECOLOGY. By John C. Hirst, M. D. Associate in Obstetrics, University of Pennsylvania. Second Edition, Revised.

12mo of 508 pages with 195 illustrations. Philadelphia and London: W. B. Saunders Company, 1925. Cloth \$3.50 net.

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Bailey, Thos. W., Greenville, S. C., Born 1861, Graduated University of Maryland 1886, Died December 17, 1924.

Bull, Laurence Elliott, Cheraw, S. C., Born 1871, Graduated Medical College of South Carolina 1901, Died December 2, 1924.

Butler, Frank W. P., Columbia, S. C., Born 1858, Graduated Medical College of South Carolina 1882, Died September 27, 1924.

Gambell, Claude Clinkscales, Abbeville, S. C., Born 1872, Graduated University of Maryland 1898, Died January 13, 1925. Member of the Executive Committee of the South Carolina State Board of Health from 1907 to his death.

Keller, William Johnson, Spartanburg, S. C., Born 1869, Graduated University of Tenn. 1895, Died October 2, 1924.

Johnston, Carlisle, St. George, S. C., Graduated University of Texas 1903, Died August 22, 1924.

Marsh, Robert Alvin, Edgefield, S. C., Born 1872, Graduated University of Maryland 1897, Died October 27, 1924. Member of the Executive Committee of the South Carolina State Board of Health from 1919 to his death.

McIntyre, Archibald, Marion, S. C., Born 1862, Graduated Medical College of South Carolina 1884, Died November 19, 1924.

Ouzts, Walter D., Johnston, S. C., Born 1858, Graduated University of Georgia 1887, Died June 19, 1924.

Simpson, Oscar B., Prosperity, S. C., Born 1882, Graduated Medical College of South Carolina 1910, Died May 7, 1924.

Walker, Clifton McKinney, Westminster, S. C., Born 1866, Graduated University of Georgia 1891, Died July, 1924.

Watson, Jos. Jinks, Columbia, S. C., Born 1872, Graduated Medical College of South Carolina 1896, Died October 15, 1924. Member of Board of Medical Examiners from 1907 to 1919.

Wilson, Edwin Ralph, Sumter, S. C., Born 1877, Graduated Medical College of South Carolina 1899, Died September 29, 1924.

Napien, J. L., Blenheim, S. C., Born January 2, 1845, Died May 13, 1924.

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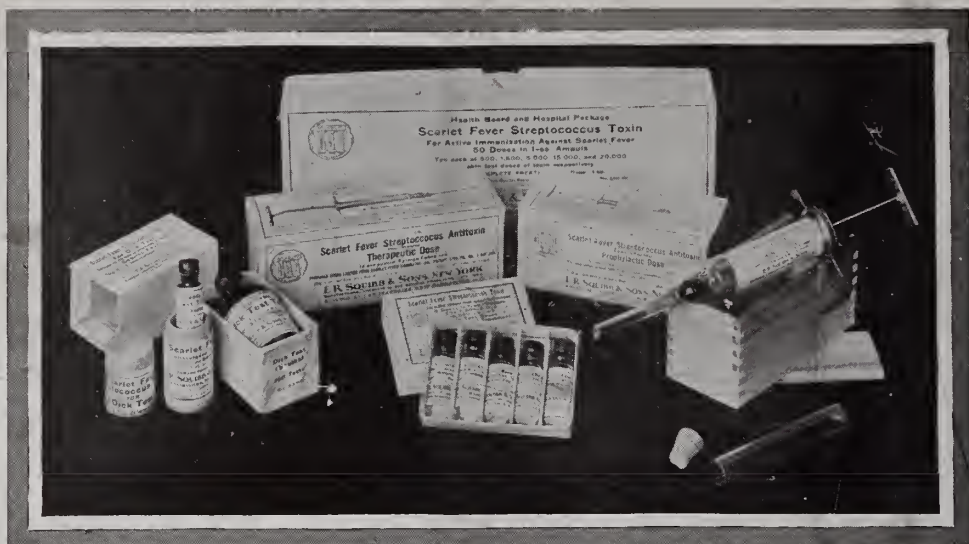
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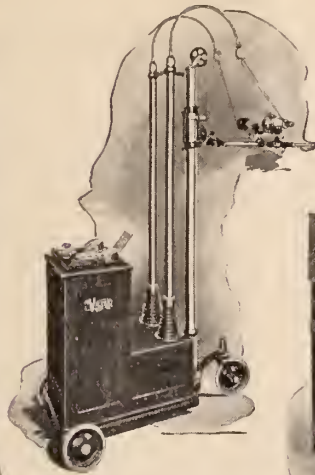
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